

HISTORY INFORMATION FOR THE FOLLOWING MANUAL:

SERVICE MANUAL

DA-4 CHASSIS

<u>MODEL NAME</u>	<u>REMOTE COMMANDER</u>	<u>DESTINATION</u>	<u>CHASSIS NO.</u>
KV-30XBR910	RM-Y188	US	SCC-S66L-A
KV-30XBR910	RM-Y188	CANADA	SCC-S70K-A
KV-30XBR910	RM-Y188	HAWAII	SCC-S69F-A
KV-34XBR910	RM-Y188	US	SCC-S66M-A
KV-34XBR910	RM-Y188	CANADA	SCC-S70L-A
KV-34XBR910	RM-Y188	HAWAII	SCC-S69G-A

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8/2003	No revisions or updates are applicable at this time.	
1/2004	Added complete Service Data List, Replaced pages 27-29 with pages 27-A through 27-W and 29 (Note: Removed page 28) Added complete ID Map Table Replaced page 29 with page 29.	

TRINITRON® COLOR TELEVISION
SONY®

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KV-34XBR910



RM-Y188

TRINITRON® COLOR TELEVISION

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TABLE OF CONTENTS

SECTION TITLE	PAGE	SECTION TITLE	PAGE
Specifications	4	SECTION 5: DIAGRAMS.....	30
Warnings and Cautions	5	5-1. Circuit Boards Location	30
Safety Check-Out	6	5-2. Printed Wiring Boards and Schematic Diagrams Information	30
Self-Diagnostic Function.....	7	5-3. Block Diagrams	31
SECTION 1: DISASSEMBLY.....	10	5-4. Schematics and Supporting Information	35
1-1. Rear Cover Removal.....	10	UD Board Schematic Diagram	35
1-2. Chassis Assembly Removal.....	10	B Board Schematic Diagram (1 of 6)	37
1-3. Service Position	10	B Board Schematic Diagram (2 of 6)	38
1-4. Picture Tube Removal.....	11	B Board Schematic Diagram (3 of 6)	39
Anode Cap Removal Procedure.....	11	B Board Schematic Diagram (4 of 6)	40
SECTION 2: SET-UP ADJUSTMENTS.....	12	B Board Schematic Diagram (5 of 6)	41
2-1. Beam Landing	12	B Board Schematic Diagram (6 of 6)	42
2-2. V-PIN and V-CEN Adjustment	13	MX Board Schematic Diagram (1 of 4)	45
2-3. Convergence.....	13	MX Board Schematic Diagram (2 of 4)	46
2-3.1. Vertical and Horizontal Static Convergence	13	MX Board Schematic Diagram (3 of 4)	47
2-3.2. Operation of BMC (Hexapole) Magnet	14	MX Board Schematic Diagram (4 of 4)	48
2-3.3. TLH Plate Adjustment	14	UX Board Schematic Diagram	51
2-3.4. Dynamic Convergence Adjustments.....	14	HMX Board Schematic Diagram	53
2-3.5. Screen-Corner Convergence.....	15	V Board Schematic Diagram (1 of 5)	55
2-4. Focus Adjustment.....	16	V Board Schematic Diagram (2 of 5)	56
2-4.1. Dynamic Focus/Dynamic Quadra-Pole Data	17	V Board Schematic Diagram (3 of 5)	57
2-5. Screen (G2).....	17	V Board Schematic Diagram (4 of 5)	58
2-6. Picture Quality Adjustments	17	V Board Schematic Diagram (5 of 5)	59
2-6.1. Video Input - Sub Contrast Adjustment.....	17	D Board Schematic Diagram (1 of 2)	62
2-6.2. Video Input - Sub Hue/Sub Color Adjustment.....	17	D Board Schematic Diagram (2 of 2)	63
2-6.3. RF Input - Two Picture Sub Contrast Adjustment	18	DL Board Schematic Diagram	67
2-6.4. RF Input - Sub Hue/Sub Color Adjustment.....	18	HCM Board Schematic Diagram.....	70
2-7. White Balance (CRT) and Sub Bright Adjustment.....	19	A Board Schematic Diagram (1 of 2).....	72
2-7.1. Color Offset Adjustment Procedure	19	A Board Schematic Diagram (2 of 2).....	73
2-8. H Raster Center Adjustment	19	CX Board Schematic Diagram	76
2-9. Picture Distortion Adjustments	20	HAX Board Schematic Diagram	78
2-9.1. NTSC (DRC) Full Mode Adjustment	20	HB Board Schematic Diagram	79
2-9.2. 1080i HD Mode Adjustment.....	21	WX Board Schematic Diagram	81
2-9.3. Twin Mode/Favorite/Index/Normal Mode Geometry Confirmation.....	21	5-5. Semiconductors (1 of 2).....	85
SECTION 3: SAFETY RELATED ADJUSTMENTS.....	22	Semiconductors (2 of 2).....	86
3-1. Preparation Before Confirmation.....	22	SECTION 6: EXPLODED VIEWS.....	87
3-1.1. Hold-Down Operation Confirmation.....	22	6-1. Chassis	87
3-2. B+ Max Confirmation	22	6-2. Picture Tube.....	88
3-3. HV Service Flow Chart.....	23	6-3. Beznert	89
SECTION 4: CIRCUIT ADJUSTMENTS.....	25	SECTION 7: ELECTRICAL PARTS LIST	90
4-1. Setting Service Adjustment Mode	25		
4-1.1. Service Adjustment Mode In	25		
4-1.2. Service Adjustment Mode Memory	25		
4-1.3. Reading the Memory	25		
4-1.4. Adjusting the Picture.....	25		
4-1.5. Resetting the Data	25		
4-1.6. Resetting the MID NVM Data	25		
4-1.7. Resetting the System NVM Data.....	25		
4-1.8. Copy Function.....	25		
4-2. Memory Write Confirmation Method	26		
4-3. Remote Adjustment Buttons and Indicators	26		
4-4. Service Data Lists	27		
4-5. ID Map Table	29		

SPECIFICATIONS

	KV-30XBR910	KV-34XBR910
Power Requirements	120V, 60Hz	
Number of Inputs/Outputs		
Video ¹⁾	4	
S Video ²⁾	3	
Y, P _B , P _R ³⁾	2	
Audio ⁴⁾	7	
Audio Out ⁵⁾	1	
Control-S (In/Out)	YES	
DVI-HDTV ⁶⁾	1	
Speaker Output (W)	7.5W x 2 15W Subwoofer	
Power Consumption (W)		
In Use (Max)	280W	
In Standby	1W	
Dimensions (W x H x D)		
mm	898 x 607 x 563 mm	994 x 652 x 605 mm
in	35 ^{3/8} x 23 ^{7/8} x 22 ^{1/8} in	39 ^{1/8} x 25 ^{5/8} x 23 ^{7/8} in
Mass		
kg	70 kg	90 kg
lbs	155 lbs	199 lbs

- 1) 1 Vp-p 75 ohms unbalanced, sync negative
2) Y: 1 Vp-p 75 ohms unbalanced, sync negative
C: 0.286 Vp-p (Burst signal), 75 ohms
3) Y: 1.0 Vp-p, 75 ohms unbalanced, sync negative;
P_B: 0.7 Vp-p, 75 ohms
P_R: 0.7 Vp-p, 75 ohms
4) 500 mVrms (100% modulation), Impedance: 47 kilohms
5) More than 408 mVrms at the maximum volume setting (variable)
More than 408 mVrms (fix), Impedance (output): 2 kilohms
6) 3.3V T.M.D.S., 50 ohms
The DVI-HDTV input terminal is compliant with the EIA-861 standard and is not intended for use with personal computers.

Television system

American TV standard, NTSC

Channel coverage

VHF: 2-13/ UHF: 14-69/ CATV: 1-125

Picture tube

FD Trinitron[®] tube

Visible screen size

30-inch picture measured diagonally (KV-30XBR910 Only)
34-inch picture measured diagonally (KV-34XBR910 Only)

Actual screen size

32-inch measured diagonally (KV-30XBR910 Only)
36-inch measured diagonally (KV-34XBR910 Only)

TruSurround[™] by SRS (●)[®]

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Antenna

75 ohm external terminal for VHF/UHF

Supplied Accessories

Remote Commander RM-RM-Y188
Two Size AA (R6) Batteries

Optional Accessories

AV Cable: VMC-810/820/830 HG
Audio Cable: RKC-515HG
Component Video Cable: VMC-10/30 HG

TV Stand: SU-30XBR1 (KV-30XBR910 Only)
TV Stand: SU-34XBR1 (KV-34XBR910 Only)

● SRS (SOUND RETRIEVAL SYSTEM)

The ● SRS (SOUND RETRIEVAL SYSTEM) is manufactured by Sony Corporation under license from SRS Labs, Inc. It is covered by U.S. Patent No. 4,748,669. Other U.S. and foreign patents pending.

The word 'SRS' and the SRS symbol (●) are registered trademarks of SRS Labs, Inc. BBE and BBE symbol are trademarks of BBE Sound, Inc. and are licensed by BBE Sound, Inc. under U.S. Patent No. 4,638,258 and 4,482,866.

WARNINGS AND CAUTIONS

CAUTION


Short circuit the anode of the picture tube and the anode cap to the metal chassis, CRT shield, or carbon painted on the CRT, after removing the anode.

WARNING!!

An isolation transformer should be used during any service to avoid possible shock hazard, because of live chassis. The chassis of this receiver is directly connected to the ac power line.



SAFETY-RELATED COMPONENT WARNING!!

Components identified by shading and  mark on the schematic diagrams, exploded views, and in the parts list are critical for safe operation. Replace these components with Sony parts whose part numbers appear as shown in this manual or in supplements published by Sony. Circuit adjustments that are critical for safe operation are identified in this manual. Follow these procedures whenever critical components are replaced or improper operation is suspected.


ATTENTION!!

Après avoir déconnecté le cap de l'anode, court-circuiter l'anode du tube cathodique et celui de l'anode du cap au châssis métallique de l'appareil, ou la couche de carbone peinte sur le tube cathodique ou au blindage du tube cathodique.

Afin d'éviter tout risque d'électrocution provenant d'un châssis sous tension, un transformateur d'isolement doit être utilisé lors de tout dépannage. Le châssis de ce récepteur est directement raccordé à l'alimentation du secteur.



ATTENTION AUX COMPOSANTS RELATIFS A LA SECURITE!!

Les composants identifiés par une trame et par une marque  sur les schémas de principe, les vues explosées et les listes de pièces sont d'une importance critique pour la sécurité du fonctionnement. Ne les remplacer que par des composants Sony dont le numéro de pièce est indiqué dans le présent manuel ou dans des suppléments publiés par Sony. Les réglages de circuit dont l'importance est critique pour la sécurité du fonctionnement sont identifiés dans le présent manuel. Suivre ces procédures lors de chaque remplacement de composants critiques, ou lorsqu'un mauvais fonctionnement suspecte.

SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety checks before releasing the set to the customer:

1. Check the area of your repair for unsoldered or poorly soldered connections. Check the entire board surface for solder splashes and bridges.
2. Check the interboard wiring to ensure that no wires are "pinched" or touching high-wattage resistors.
3. Check that all control knobs, shields, covers, ground straps, and mounting hardware have been replaced. Be absolutely certain that you have replaced all the insulators.
4. Look for unauthorized replacement parts, particularly transistors, that were installed during a previous repair. Point them out to the customer and recommend their replacement.
5. Look for parts which, though functioning, show obvious signs of deterioration. Point them out to the customer and recommend their replacement.
6. Check the line cords for cracks and abrasion. Recommend the replacement of any such line cord to the customer.
7. Check the B+ and HV to see if they are specified values. Make sure your instruments are accurate; be suspicious of your HV meter if sets always have low HV.
8. Check the antenna terminals, metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.

Leakage Test

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microamperes). Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instructions.
2. A battery-operated AC milliampmeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75 V, so analog meters must have an accurate low voltage scale. The Simpson's 250 and Sanwa SH-63TRD are examples of passive VOMs that are suitable. Nearly all battery-operated digital multimeters that have a 2 VAC range are suitable (see Figure A).

How to Find a Good Earth Ground

A cold-water pipe is a guaranteed earth ground; the cover-plate retaining screw on most AC outlet boxes is also at earth ground. If the retaining screw is to be used as your earth ground, verify that it is at ground by measuring the resistance between it and a cold-water pipe with an ohmmeter. The reading should be zero ohms.

If a cold-water pipe is not accessible, connect a 60- to 100-watt trouble-light (not a neon lamp) between the hot side of the receptacle and the retaining screw. Try both slots, if necessary, to locate the hot side on the line; the lamp should light at normal brilliance if the screw is at ground potential (see Figure B).

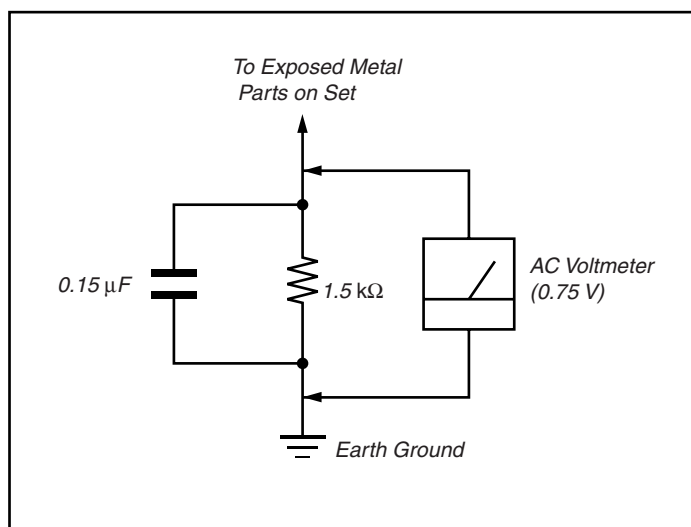


Figure A. Using an AC voltmeter to check AC leakage.

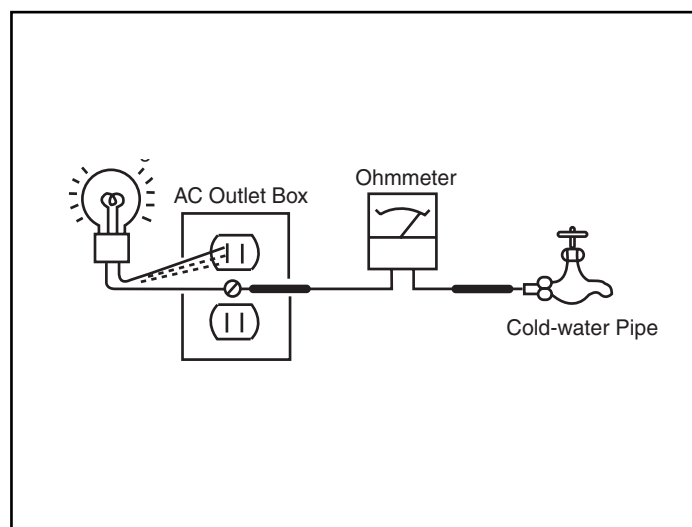


Figure B. Checking for earth ground.

SELF-DIAGNOSTIC FUNCTION



The units in this manual contain a self-diagnostic function. If an error occurs, the STANDBY/TIMER LED will automatically begin to flash. The number of times the LED flashes translates to a probable source of the problem. A definition of the STANDBY/TIMER LED flash indicators is listed in the instruction manual for the user's knowledge and reference. If an error symptom cannot be reproduced, the Remote Commander can be used to review the failure occurrence data stored in memory to reveal past problems and how often these problems occur.

Diagnostic Test Indicators

When an error occurs, the STANDBY/TIMER LED will flash a set number of times to indicate the possible cause of the problem. If there is more than one error, the LED will identify the first of the problem areas.

Results for all of the following diagnostic items are displayed on screen. If the screen displays a "0", an error has occurred.

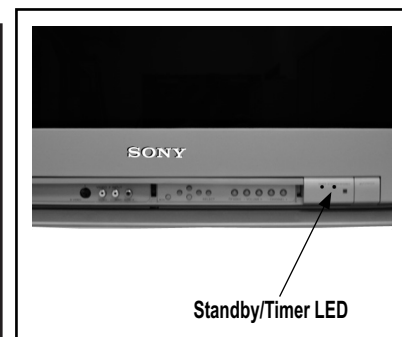
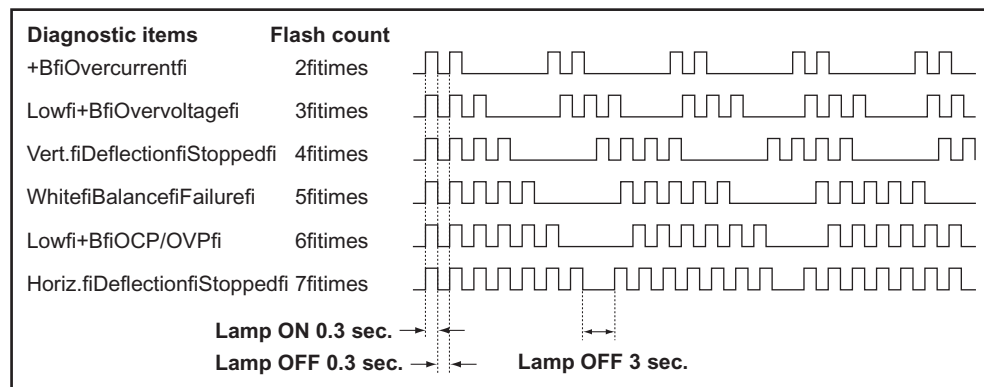
Diagnostic Item	No. of times STANDBY / TIMER lamp flashes	Display Result	Probable Cause Location	Detected Symptoms
Power does not turn on	Does not light	-----	<ul style="list-style-type: none"> Power cord is not plugged in. Fuse is burned out (F501). (A Board) 	<ul style="list-style-type: none"> Power does not come on. No power is supplied to the TV. AC Power supply is faulty.
+B Overcurrent (OCP)*	2 times	2:0 or 2:1	<ul style="list-style-type: none"> H.OUT (Q5030) is shorted. (D Board) +B PWM (Q5003) is shorted. (D Board) 	<ul style="list-style-type: none"> Power does not come on. Load on power line shorted.
Low +B Overvoltage (OVP)	3 times	3:0 or 3:1	<ul style="list-style-type: none"> IC6505 is faulty. (D Board) 	<ul style="list-style-type: none"> Has entered standby mode.
Vertical Deflection Stopped	4 times	4:0 or 4:1	<ul style="list-style-type: none"> 15V is not supplied. (D Board) IC5004 is faulty. (D Board) 	<ul style="list-style-type: none"> Has entered standby mode after Horizontal raster. Vertical deflection pulse is stopped. Power line is shorted or power supply is stopped.
White Balance Failure (not balanced)	5 times	5:0 or 5:1	<ul style="list-style-type: none"> Video OUT (IC9001-IC9003) is faulty. (CH, CX Board) CRT drive (IC2801) is faulty. (B Board) G2 is improperly adjusted.** 	<ul style="list-style-type: none"> No raster is generated. CRT cathode current detection reference pulse output is small.
LOW +B OCP/OVP (overcurrent/overvoltage)***	6 times	6:0 or 6:1	<ul style="list-style-type: none"> +5 line is overloaded. (A, B, M Boards) +5 line is shorted. (A, B, M Boards) IC504 is faulty. (A Board) 	<ul style="list-style-type: none"> No picture
Horizontal Deflection Stopped	7 times	7:0 or 7:1		<ul style="list-style-type: none"> No picture

* If a +B overcurrent is detected, stoppage of the vertical deflection is detected simultaneously. The symptom that is diagnosed first by the microcontroller is displayed on the screen.

** Refer to Screen (G2) in Section 2-5 of this manual.

*** If STANDBY/STEREO LED flashes six (6) times, unplug the unit and wait 10 seconds before performing the adjustment.

Display of Standby/Timer LED Flash Count



* One flash count is not used for self-diagnostic.

Stopping the Standby/Timer LED Flash

Turn off the power switch on the TV main unit or unplug the power cord from the outlet to stop the STANDBY/TIMER LAMP from flashing.

Self-Diagnostic Screen Display

For errors with symptoms such as “power sometimes shuts off” or “screen sometimes goes out” that cannot be confirmed, it is possible to bring up past occurrences of failure on the screen for confirmation.

To Bring Up Screen Test

In standby mode, press buttons on the Remote Commander sequentially, in rapid succession, as shown below:

DISPLAY ➡ Channel **5** ➡ Sound volume **-** ➡ Power ON.

SELF DIAGNOSIS

2: +B OCP	0
3: +B OVP	0
4: VSTOP	0-
5: AKB	1-
6: LOWB	0
7: H-STOP	0
101: WDT	24

- Numeral "0" means that no fault was detected.
- Numeral "1" means a fault was detected one time only.

Handling of Self-Diagnostic Screen Display

Since the diagnostic results displayed on the screen are not automatically cleared, always check the self-diagnostic screen during repairs. When you have completed the repairs, clear the result display to "0".

Unless the result display is cleared to "0", the self-diagnostic function will not be able to detect subsequent faults after completion of the repairs.

Clearing the Result Display

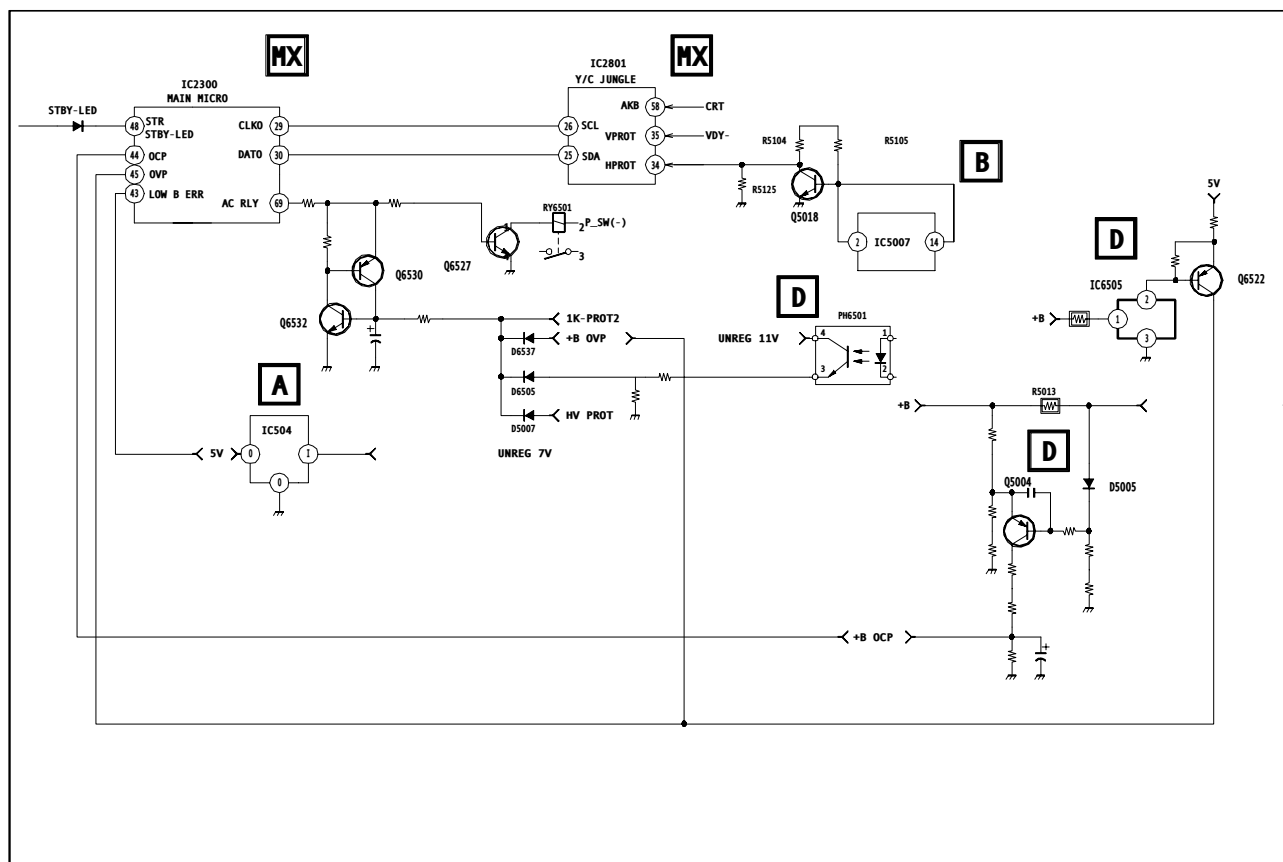
To clear the result display to "0", press buttons on the Remote Commander sequentially when the diagnostic screen is displayed, as shown below:

Channel **8** ➔ **ENTER**

Quitting the Self-Diagnostic Screen

To quit the entire self-diagnostic screen, turn off the power switch on the Remote Commander or the main unit.

Self-Diagnostic Circuit



+B overcurrent (OCP)

Occurs when excessive current flows through R5013. The increase in voltage across R5013 causes the output of Q5004 to go high, and this high signal goes to the micro.

+B overvoltage (OVP)

IC6505 detects +B OVP condition and turns on Q6522. This sends a high signal to the micro and also shuts down the AC relay.

V-STOP

Occurs when an absence of the vertical deflection pulse is detected by pin 24 of IC2801 (B Board). Power supply will shut down when waveform interval exceeds 2 seconds.

White Balance Failure

If the RGB levels* do not balance within 2 seconds after the power is turned on, this error will be detected by IC2801. TV will stay on, but there will be no picture.

*(Refers to the RGB levels of the AKB detection Ref pulse that detects 1K).

Low B OCP/OVP

Occurs when set 5V is out.

Horizontal Deflection Stopped

Occurs when either:

- 1) a +B overcurrent is detected (IC5007), or
- 2) overheating is detected (Thermistor TH5002).

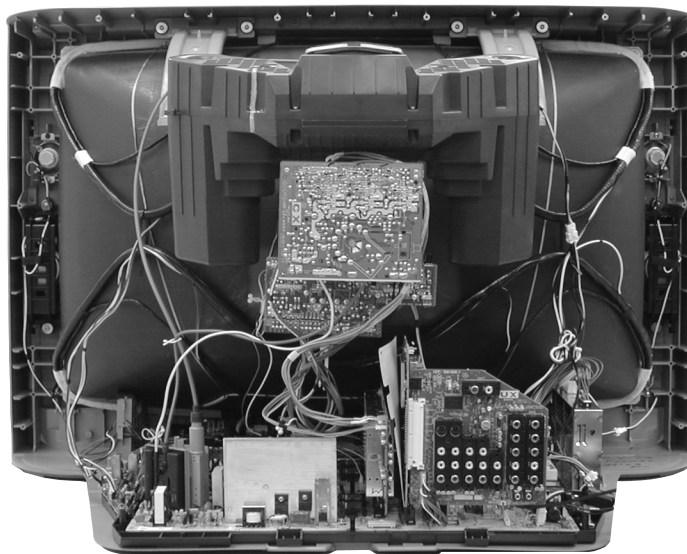
SECTION 1: DISASSEMBLY

1-1. REAR COVER REMOVAL

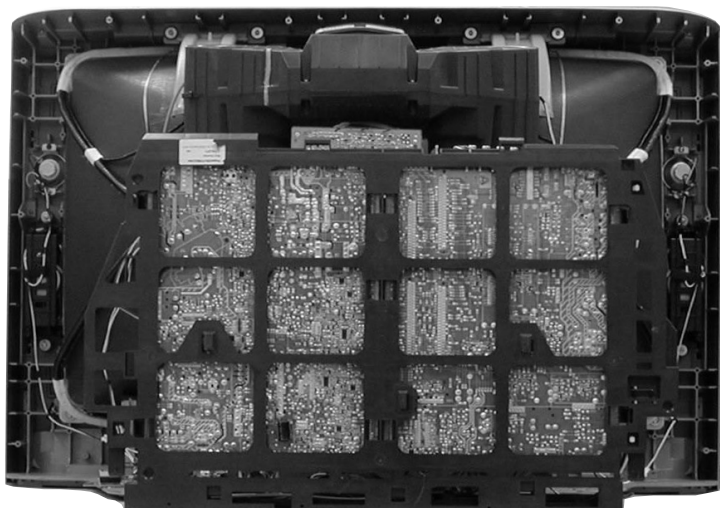


1-2. CHASSIS ASSEMBLY REMOVAL

- ① Lift lever up on the right and left sides of the chassis bracket and gently pull the chassis assembly away from the bezel.
- ② Pull up and rotate both the A and D Boards in order to service the unit.



1-3. SERVICE POSITION

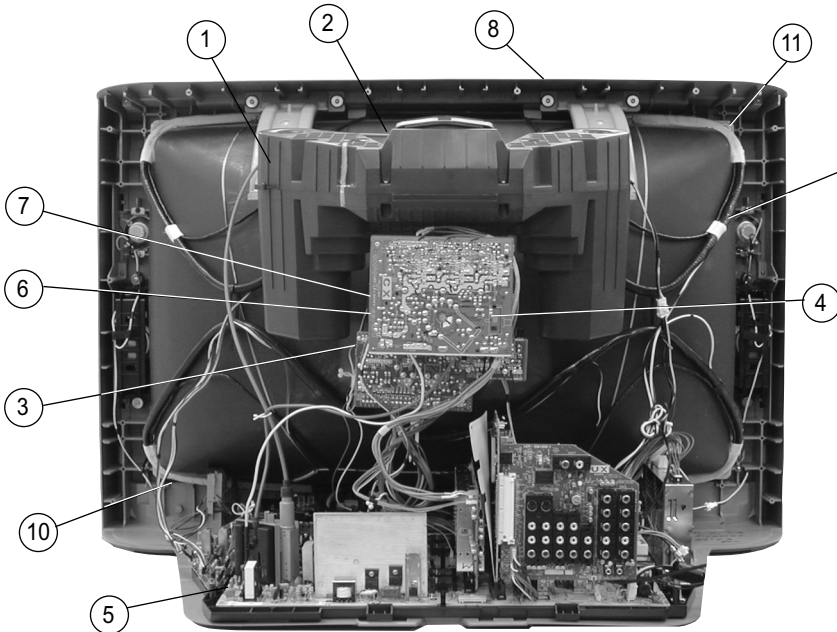
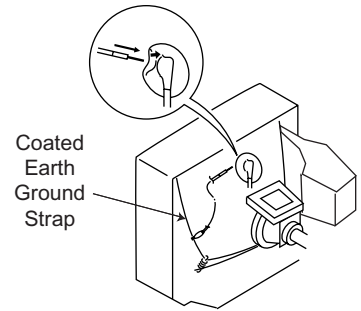


- ① **CAUTION!** - Heat sink on IC5004 is -15V. Care must be taken not to allow heat sink to touch any other components.
- ② Lift lever up on the right and left sides of the chassis bracket and gently pull the chassis assembly away from the bezel.
- ③ Pull up and rotate both the A and D Boards in order to service the unit.

1-4. PICTURE TUBE REMOVAL

WARNING: BEFORE REMOVING THE ANODE CAP

High voltage remains in the CRT even after the power is disconnected. To avoid electric shock, discharge CRT before attempting to remove the anode cap. Short between anode and CRT coated earth ground strap.



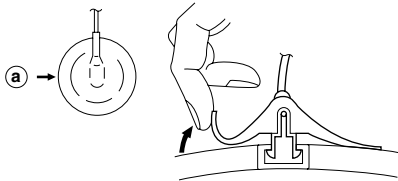
1. Remove the Sub-Woofer Assemblies.
2. Discharge the anode of the CRT and remove the anode cap.
3. Unplug all interconnecting leads from the deflection yoke, neck assembly, degaussing coils and CRT grounding strap.
4. Remove the CX Board from the CRT.
5. Remove the chassis assembly.
6. Loosen the neck assembly fixing screw and remove.
7. Loosen the deflection yoke fixing screw and remove.
8. Place the set with the CRT face down on a cushion and remove the degaussing coil holders.
9. Remove the degaussing coils.
10. Remove the CRT grounding strap and spring tension devices.
11. Unscrew the four CRT fixing screws [located on each CRT corner] and remove the CRT [Take care not to handle the CRT by the neck].

ANODE CAP REMOVAL PROCEDURE

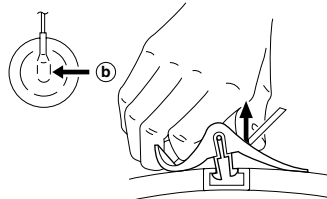
WARNING: High voltage remains in the CRT even after the power is disconnected. To avoid electric shock, discharge CRT before attempting to remove the anode cap. After removing the anode cap, short circuit to either the metal chassis, CRT shield, or carbon painted on the CRT.

NOTE: After removing the anode cap, short circuit the anode of the picture tube and the anode cap to either the metal chassis, CRT shield or carbon painted on the CRT.

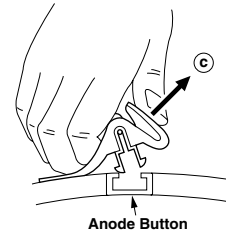
REMOVAL PROCEDURES



Turn up one side of the rubber cap in the direction indicated by arrow a .



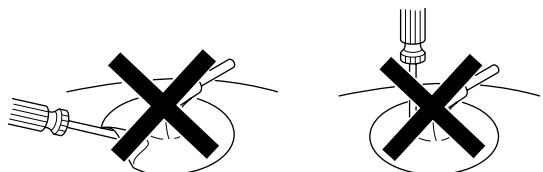
Use your thumb to pull the rubber cap firmly in the direction indicated by arrow b .



When one side of the rubber cap separates from the anode button, the anode cap can be removed by turning the rubber cap and pulling it in the direction of arrow c .

HOW TO HANDLE AN ANODE CAP

1. Do not use sharp objects which may cause damage to the surface of the anode cap.
2. To avoid damaging the anode cap, do not squeeze the rubber covering too hard. A material fitting called a shatter-hook terminal is built into the rubber.
3. Do not force turn the foot of the rubber cover. This may cause the shatter-hook terminal to protrude and damage the rubber.



SECTION 2: SET-UP ADJUSTMENTS

The following adjustments should be made when a complete realignment is required or a new picture tube is installed.

These adjustments should be performed with rated power supply voltage unless otherwise noted.

The controls and switch should be set as follows unless otherwise noted:

VIDEO MODE: STANDARD (RESET)

Perform the adjustments in order as follows:

1. Beam Landing
2. Convergence
3. Focus
4. Screen (G2)
5. White Balance

Test Equipment Required:

1. Color Bar Pattern Generator
2. Degausser
3. DC Power Supply
4. Digital Multimeter

2-1. BEAM LANDING

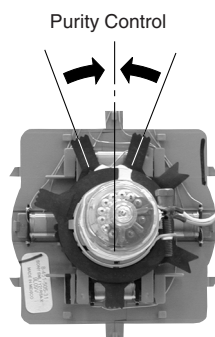
Preparation:

- Use cross hatch signal to rough adjust focus, G2 and then input a white pattern signal.
- Face the picture tube in an East or West direction to reduce the influence of geomagnetism.
- Confirm data in service mode to match with CRT screen size.
 - CXA2170D-4
 - CXA8070 (Should be set to default)
 - VCEN, VPIN, HTPZ, PPHA, VANG, LANG, VBOW, LBOW (Should be set to default value).
- Set all user compensations to their default settings.
- Set landings to their default settings.

• LT	Left Top LCC Control	127
• LB	Left Bottom LCC Control	127
• RT	Right Top LCC Control	127
• RB	Right Bottom LCC Control	127

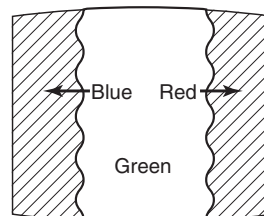
NOTE: Do not use the hand degausser. Using the degausser magnetizes the CRT.

1. Input white pattern from pattern generator. Set the PICTURE control to maximum, and the BRIGHTNESS control to standard.
2. Loosen the deflection yoke mounting screw, and set the purity control to the center as shown below:



3. Input a green pattern from the pattern generator.

4. Move the deflection yoke backwards, (See Figure 1) and adjust with the purity control so that green is in the center and red and blue are even on both sides.



5. Move the deflection yoke forward, and adjust so that the entire screen becomes green.

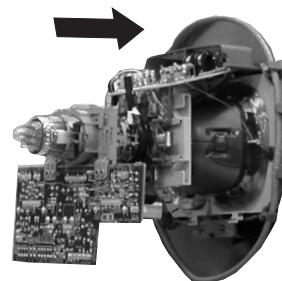


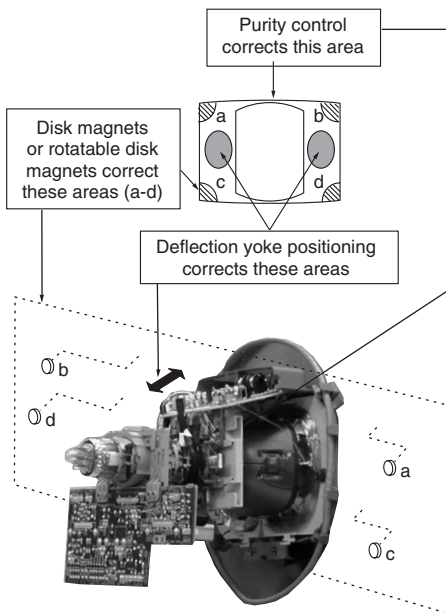
Figure 1

6. Switch over the raster signal to red and blue and confirm the condition.
7. When the position of the deflection yoke is determined, tighten it with the deflection yoke mounting screw.

8. Set corner landing adjustments.

To get optimal landing, adjust LT, LB, RT, and RB with Service Data +/- 70.

NOTE: If landing adjustment exceeds the limit, as a last resort you can adjust it by using the disk magnets.



2-2. V-PIN AND V-CEN ADJUSTMENT

Preparation:

- Input a cross hatch pattern signal.
- Set Video Mode to: Standard (Reset)
- For all 4X3 CRT, VPIN data has separate register for full and V-compress. Adjust both modes if needed.

1. Adjust service mode CXA2170D-1 05 V-CEN so that the top pin and bottom pin are symmetrical from top to bottom.
2. Adjust service mode CXA2170D-1 06 V-PIN so that the top pin and bottom pin are symmetrical from top to bottom.
3. Horizontal lines should be straight from left to right. Check landing for side effect.

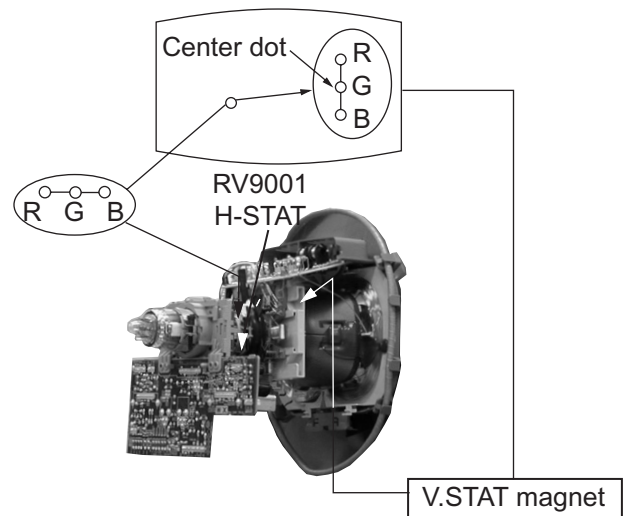
2-3. CONVERGENCE

Preparation:

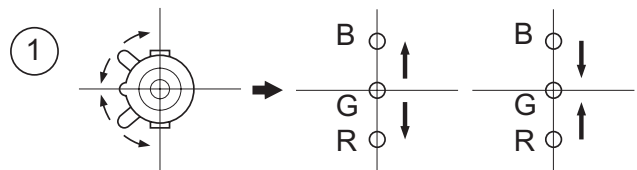
- Set the CONTRAST and BRIGHTNESS control to standard (reset).
- Input a cross hatch pattern signal.

2-3.1. VERTICAL AND HORIZONTAL STATIC CONVERGENCE

1. Disconnect the dynamic convergence before adjusting static convergence (CN903), except for minor touch-up.
2. Adjust H-STAT convergence, RV9001, to converge red, green, and blue dots in the center of the screen.
3. Connect dynamic convergence back.
4. Adjust V-STAT magnet to converge red, green and blue dots in the center of the screen.



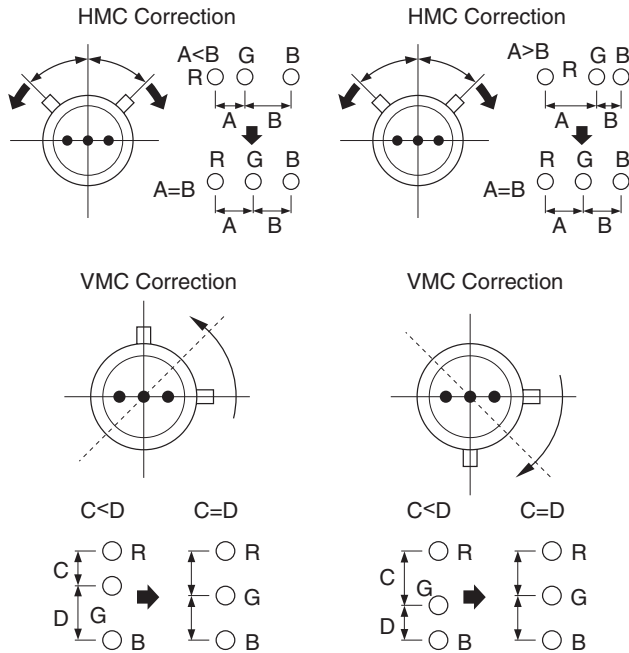
5. Tilt the V-STAT magnet and adjust static convergence to open or close the V-STAT magnet.



2-3.2. OPERATION OF BMC (HEXAPOLE) MAGNET

The respective dot positions result from moving each magnet interact. Perform the following adjustments while tracking.

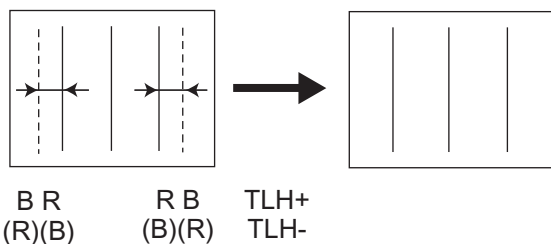
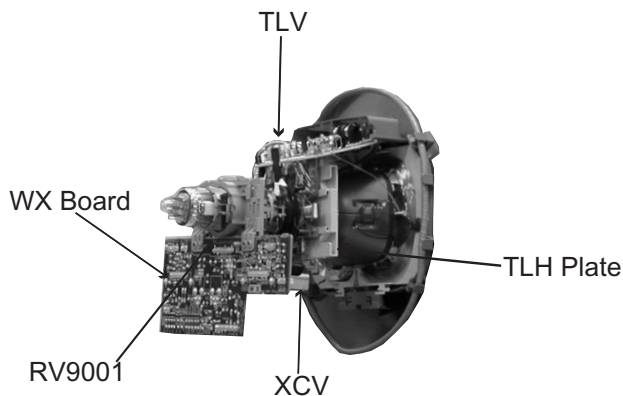
- Use the BMC tabs to adjust the red, green and blue dots so that they line up at the center of the screen (move the dots in a horizontal direction).



2-3.3. TLH PLATE ADJUSTMENT

Preparation:

- Input a cross hatch pattern signal.
- Adjust unbalanced horizontal convergence of red and blue dots by adjusting the TLH Plate on the deflection yoke.



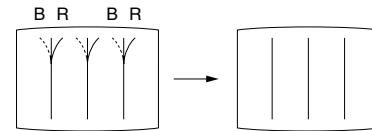
- Adjust XCV core to balance X axis.
 - Adjust the vertical red and blue convergence with V.TILT (TLV VR).
- Note:** Perform adjustments while tracking Item 1.

2-3.4. DYNAMIC CONVERGENCE ADJUSTMENTS

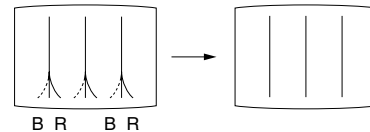
- Set dynamic convergence using the following service mode adjustment data.
- Only H-component can be corrected, for vertical component use permalloy to compensate.
- After adjusting the following parameter, write data into NVM **MUTING** + **ENTER** then copy for 1080i CPY2 (D Conv Item 13 - Change data to 1 then write.)

Output signal format			480P/960i	480P/960i	480P/960i	1080i	1080i	480P/960i
FOR 4:3 CRTs			x	x	FULL S.TT	FULL M	Vcomp T.R	Vcomp
Twin:T, Favorite:F, Scroll:S, MS:M, Freeze:R, Test twin:TT								
FOR 16:9 CRT			WZ	ZOOM	FULL F.S.TT	FULL T.M.R	x	Normal
Twin:T, Favorite:F, Scroll:S, MS:M, Freeze:R, Test twin:TT								
Device name	Item #	OSD	34/30XBR					
CXA8070	0	YBWU	Adjust (31)					
	1	YBWL	Adjust (31)					
	2	RSAP	Adjust (31)					
	3	RUBW	Adjust (31)					
	4	RUMB	Adjust (31)					
	5	RLBW	Adjust (31)					
	6	RLMB	Adjust (31)					
	7	LSAP	Adjust (31)					
	8	LUBW	Adjust (31)					
	9	LUMB	Adjust (31)					
	10	LLBW	Adjust (31)					
	11	LLMB	Adjust (31)					
	12	CADJ	Fix data 23/25 (Default)					

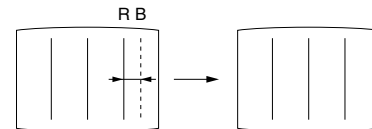
0. YBWU (Upper Y-BOW)



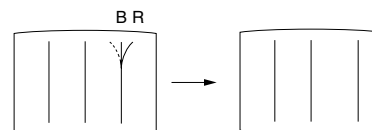
1. YBWL (Lower Y BOW)



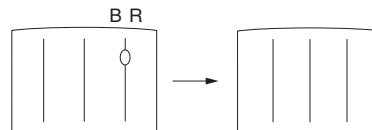
2. RSAP (Right H AMP)



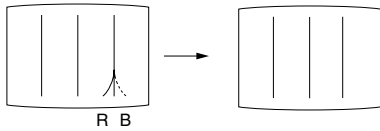
3. RUBW (Right Upper BOW)



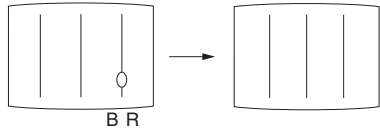
4. RUMB (Right Upper Middle BOW)



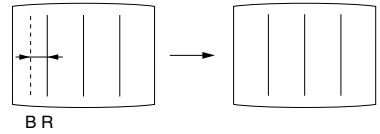
5. RLBW (Right Lower BOW)



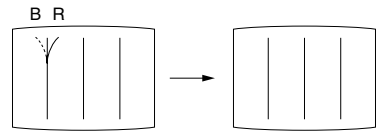
6. RLMB (Right Lower Middle BOW)



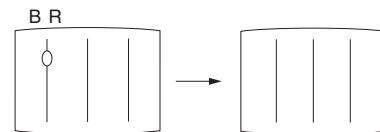
7. LSAP (Left H AMP)



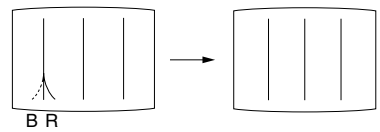
8. LUBW (Left Upper BOW)



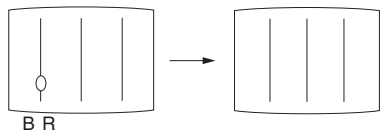
9. LUMB (Left Upper Middle BOW)



10. LLBW (Left Lower BOW)



11. LLMB (Left Lower Middle BOW)



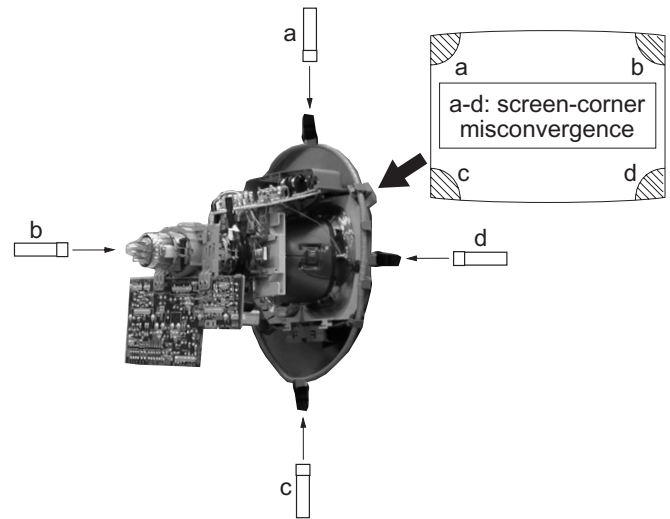
12. CADJ Fix 29

2-3.5. SCREEN-CORNER CONVERGENCE

Preparation:

- Input a cross hatch pattern signal.

- Affix a permalloy assembly corresponding to the misconverged areas.



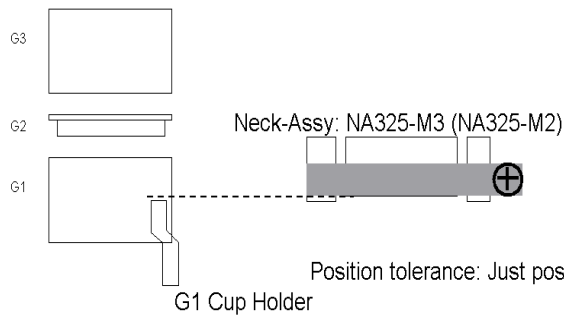
2-4. FOCUS ADJUSTMENT

Confirm neck assembly Z axis position.

1. Input a dot signal.
2. Set Video Mode to STANDARD.
3. Input a HD monoscope signal.
4. Confirm center focus with focus VR.

Neck-Assy Installation Position

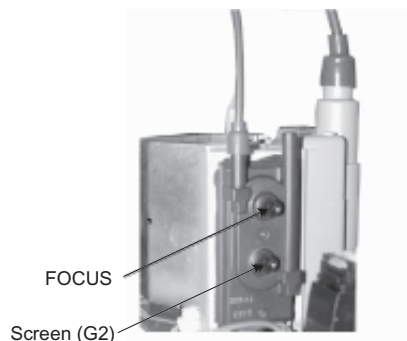
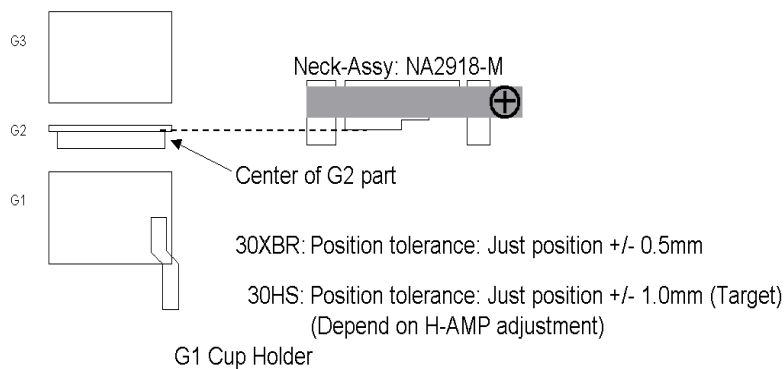
34XBR (Same as 2002 DA4-Chassis ; CRT 36RV2, Neck-Assy NA325-M2)
 CRT: 36RDE (Super-Fine Pitch and Square Fannel)
 Neck: NA325-M3 (NOT VA-Type, Square pin assignment, VPIN harness)



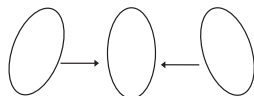
NOTE: Just position is the adjustment position from the center location indicated.

30XBR CRT: 32RDE (Super-Fine Pitch and Square Fannel)

Neck: NA2918-M (NOT VA-Type, Square pin assignment, VPIN harness)



DOT SHAPE:



NOTE: The Neck Assembly tilt can effect dot shape.

NOTE: Changing neck assembly position will affect corner convergence.

2-4.1. DYNAMIC FOCUS/DYNAMIC QUADRA-POLE DATA

Normally, no adjustments are necessary for these systems. If for some reason the data is lost, use the initial data.

2-5. SCREEN (G2)

1. Input composite white field into Video 1.
2. Set to service mode and adjust as follows:

(Fig 1) CXA2170P-2 PICO 1 → 0	Operation Procedure	Standards	Notes
	1) In Full mode, apply changes in Fig 1		
	2) Mount G2 adjustment jig. Adjust Cathode voltage if the standard is not met. Standard varies by CRT size.	170 ± 5 (Vpc)	30XBR & 34XBR
	3) Adjust G2 by Flyback Transformer (T8001).		
	4) Return data changes in 1) to original condition.		

2-6. PICTURE QUALITY ADJUSTMENTS

Preparation:

- Set PRO MODE (Reset).
1. Input signal (480i Composite):
 - Color Bar Video 75 IRE (White) 75% modulation 7.5% Set-up.
 - Color Bar RF 75 IRE (White) 75% modulation 7.5% Set-up.

2-6.1. VIDEO INPUT - SUB CONTRAST ADJUSTMENT

Preparation:

- Input a Color Bar signal to VIDEO 1 (75 IRE 75%).
- Set picture mode: Single (PRO MODE Reset).
- Picture: Max

1. Set to Service Mode and adjust as follows:

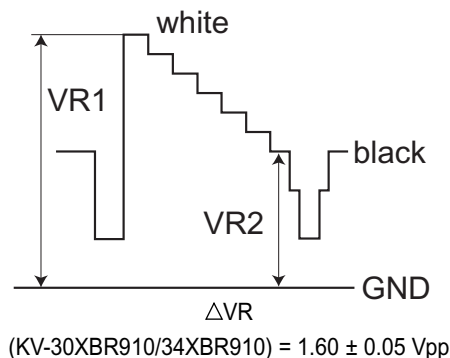
2170P-2

NO.	Name	Control Function	Avg. Data
01	RGBS	R ON	4

2. Connect oscilloscope to Pin 1 of CN9001 (R.DRV) on the C Board.
3. Adjust contrast according to the service mode item: SPIO.

2170-P4

NO.	Name	Control Function
04	SPIO	SUB-CONT



4. Write data from Step 3 above, into memory.

2-6.2. VIDEO INPUT - SUB HUE/SUB COLOR ADJUSTMENT

Preparation:

- Input a Color Bar signal to VIDEO 1 (75 IRE 75%).
- Set picture mode: Single (PRO MODE Reset).
- Picture: Max

1. Set to Service Mode and adjust as follows:

2170P-2

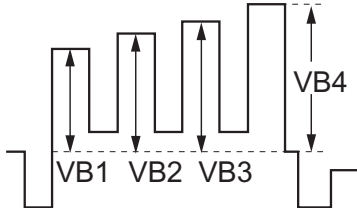
NO.	Name	Control Function	Avg. Data
01	RGBS	R ON	7

2. Connect an oscilloscope to Pin 5 of CN9001 (B. DRV) on the C Board.
3. Adjust color according to Service Mode for SCLO.

4. Adjust color according to Service Mode for SHUO.

2170P-4

NO.	Name	Control Function
03	SCLO	SUB-COLOR
04	SHUO	SUB-HUE



COLOR: $VB1 \leq VB4$ ($=20 \pm 40$ mV)

HUE: $VB2 \leq VB3$ ($=20 \pm 40$ mV)

7. Write data into memory.

2-6.3. RF INPUT - TWO PICTURE SUB CONTRAST ADJUSTMENT

Preparation:

- Input a Color Bar signal to RF (75 IRE 75%).
- Set picture mode: P&P (PRO MODE).
- Picture: Max

1. Set to Service Mode and adjust as follows:

2170P-2

NO.	Name	Control Function	Avg. Data
01	RGBS	R ON	4

2. Connect an oscilloscope to Pin 1 of CN9001 (R. DRV) on the C Board.
3. Adjust MAIN (left) side contrast according to service mode for SCON.

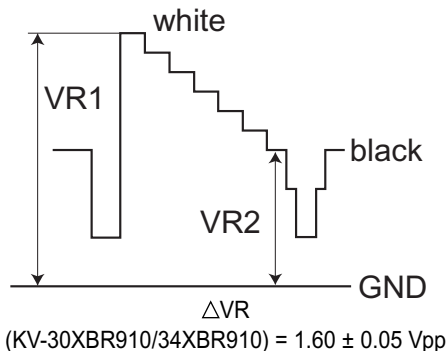
2103-1

NO.	Name	Control Function
02	SCON	SUB-CONT

4. Adjust SUB (right) side contrast according to Service Mode for SCON.

2103-2

NO.	Name	Control Function
02	SCON	SUB-CONT



5. Write data from Steps 3 - 4 above, into memory.
6. Set Service Mode

2-6.4. RF INPUT - SUB HUE/SUB COLOR ADJUSTMENT

Preparation:

- Input a Color Bar signal to RF (75 IRE 75%).
- Set picture mode: P&P (PRO MODE Reset).
- Picture: Max

1. Set to Service Mode and adjust as follows:

2170P-2

NO.	Name	Control Function	Avg. Data
01	RGBS	R ON	7

2. Connect an oscilloscope to pin 5 of CN9001 (B. DRV) on the C Board.
3. Adjust MAIN (left) side color according to Service Mode for SCOL.
4. Adjust MAIN (left) side color according to Service Mode for SHUE.

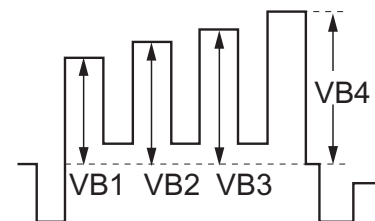
2103-1

NO.	Name	Control Function
03	SCOL	SUB COLOR
04	SHUE	SUB HUE

5. Adjust SUB (right) side color according to Service Mode for SCOL.
6. Adjust SUB (right) side color according to Service Mode for SHUE.

2103-2

NO.	Name	Control Function
03	SCOL	SUB COLOR
04	SHUE	SUB HUE



COLOR: $VB1 \leq VB4$ ($=20 \pm 40$ mV)

HUE: $VB2 \leq VB3$ ($=20 \pm 40$ mV)

7. Write data into memory.

2-7. WHITE BALANCE (CRT) AND SUB BRIGHT ADJUSTMENT

Preparation

- Input an all white 480I (15.734 KHz) signal into the VIDEO 1 input terminal to perform the White Balance (highlight, cut-off) adjustments. The parameters to adjust are in the CXA2170P in Service Mode.

WHITE BALANCE ADJUSTMENT PROCEDURE (Composite White Field signal into Video 1)

Highlight and Cutoff Specification	OLD Calibration		NEW Calibration	
	9300K + 8MPCD		10900K + 2MPCD	
	R/G = 1.000		R/G = 1.007	
	B/G = 1.000		B/G = 1.139	
	x = 0.284 y = 0.298		x = 0.276 y = 0.284	

Condition	Picture Mode: Single (Full) Picture Setting: Pro	
	Color Temp: Neutral	
	Picture: 63	write to 86h:01h:FFh
	Color: 0	write to 86h:03h:00h

Adjustment Registers (Service Mode)	WB701 Preset	32RDE 0.775 0.915
		36RDE 0.770 0.930
	RDRV (fixed)	2170P-1-06
	GDRV	2170P-1-07
	BDRV	2170P-1-08
	RCUT (fixed)	2170P-1-09
	GCUT	2170P-1-10
BCUT	2170P-1-11	

2-7.1. COLOR OFFSET ADJUSTMENT PROCEDURE

Preparation:

- Input an all white (30 IRE) signal to the specified input.
- Adjust the white balance using the specified registers.

VIDEO 1

CXA2103-1

NO.	Name	Control Function
20	CBO1	CB OFFSET
21	CRO1	CR OFFSET

VIDEO 5

CXA2103-1

NO.	Name	Control Function
20	CBO1	CB OFFSET
21	CRO1	CR OFFSET

VIDEO 7 - DVI

CXA2103-1

NO.	Name	Control Function
22	CBO2	CB01 (FROM VIDEO 5) - 5
23	CRO2	CR01 (FROM VIDEO 5) -4

2-8. H RASTER CENTER ADJUSTMENT

Preparation:

- Input a monoscope signal.
- Set to NTSC (DRC) mode.

- Set to Service Mode and adjust as follows:

CXA2150P-2

NO.	Name	Control Function	Avg. Data
06	AGNG	AGING 1, AGING 2	2

CXA2150D-2

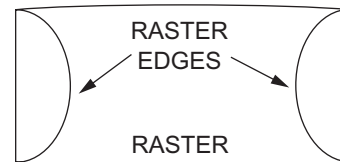
NO.	Name	Control Function	Avg. Data
02	HSIZ	Horiz Size	45

CXA2150D-3

NO.	Name	Control Function	Avg. Data
00	HBLK	Blanking Enable	0

- Reduce HSIZ to see sides of raster.
- Adjust H-Center with CXA2170D-2.
- Adjust to the best screen position with H-CENT and write data.
- Restore aging, HSIZ and HBLK to original condition.

Raster Edge Equal:



2-9. PICTURE DISTORTION ADJUSTMENTS

2-9.1. NTSC (DRC) FULL MODE ADJUSTMENT

1. Face the picture tube in an east-west direction. (For best condition.)
2. Complete V-PIN and V-CEN adjustments first (A2170-D1 06 V-PIN, A2170-D1 05 V-CEN).
3. Input a monoscope and crosshatch signal. Adjust the picture distortion with the following service parameters to balance the best condition for these two signals.

NOTE: Make sure that the picture size is within specs. Vertical size is 11.8 ± 0.1 sq. and horizontal size is 15.8 ± 0.1 sq.

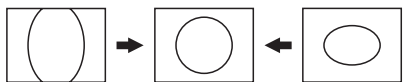
4. Write data into memory before changing modes.

CXA2170D-1

Item 0. VPOS (V-POSITION)



Item 1. VSIZ (V-SIZE)



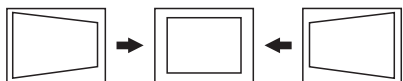
Item 3. VLIN (V-LINE)



Item 4. VSCO (VS-COR)

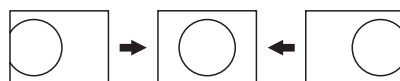


Item 9. HTPZ (H-TRAPEZOID)

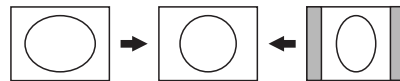


CXA2170D-2

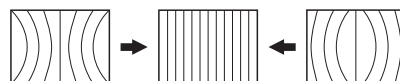
Item 1. HPOS (H-POSITION)



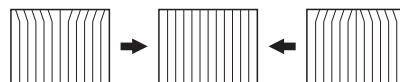
Item 2. HSIZ (H-SIZE)



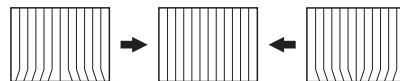
Item 5. PIN (PIN AMP)



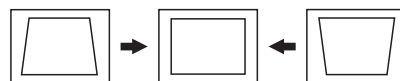
Item 7. UCP (UP COR PIN COR)



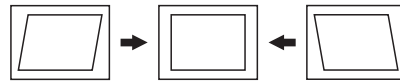
Item 8. LCP (LOW CO PIN COR)



Item 14. PPHA (PIN PHASE)



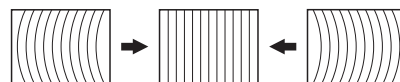
Item 15. VANG (AFC-ANGLE)



Item 16. LANG (L-ANGLE)



Item 17. VBOW (AFC-BOW)



Item 18. LBOW (L-BOW)



2-9.2. 1080i HD MODE ADJUSTMENT

1. Input a 1080i cross-hatch signal and an HD monoscope signal that contains overscan markers.
2. Adjust the raster position per Section 2-8., only if this procedure was not performed for full mode.
3. Adjust the geometry similar to Full DRC mode. Vertical size is 11.7 ± 0.1 sq. and horizontal size is 15.6 ± 0.1 sq., if monoscope signal is available. Otherwise, set the Vertical size to $91.0 \pm 0.6\%$ scan and Horizontal size as $91.0 \pm 0.6\%$ scan.
4. Use the following register to adjust the horizontal parameter:

A2150-D2	01	HPOS
----------	----	------

NOTE: If necessary, touch up the geometry using the data register listed above for Full mode. Check NTSC full mode for side effect and balance.

5. Write the data into memory before changing modes.

2-9.3. TWIN MODE/FAVORITE/INDEX/ NORMAL MODE GEOMETRY CONFIRMATION

TWIN mode and FAVORITE mode use the FULL mode adjustment data. The key point for TWIN mode adjustment is the blue border appearance. The left border on the left picture should not be visible when the left picture is selected. Similarly, the right border on the right picture should not be visible when the right picture is selected. Balance the HPOS or HSIZ data for FULL and TWIN mode.

For INDEX mode, however, no clipping of the picture edge should be visible for the small sampled pictures on the right side. Adjust HSIZ/ HPOS to balance FULL and INDEX mode for this. Avoid displaying the edge of the raster in FULL or FAVORITE mode.

SECTION 3: SAFETY RELATED ADJUSTMENTS

3-1. PREPARATION BEFORE CONFIRMATION

Standard..... 135.3 ± 1 VAC
Check Condition:
 AC input voltage: 120 (± 2) VAC
Note: If using a stabilized power supply, make sure that the distortion factor is 3% or less.
Setting Mode: Full mode
Signal Input: Cross-hatch of NTSC
Initial Setting: Standard Reset condition
Confirm Point: Across CN5509 PIN 9 for B+ of D Board

3-1.1 HOLD-DOWN OPERATION
CONFIRMATION

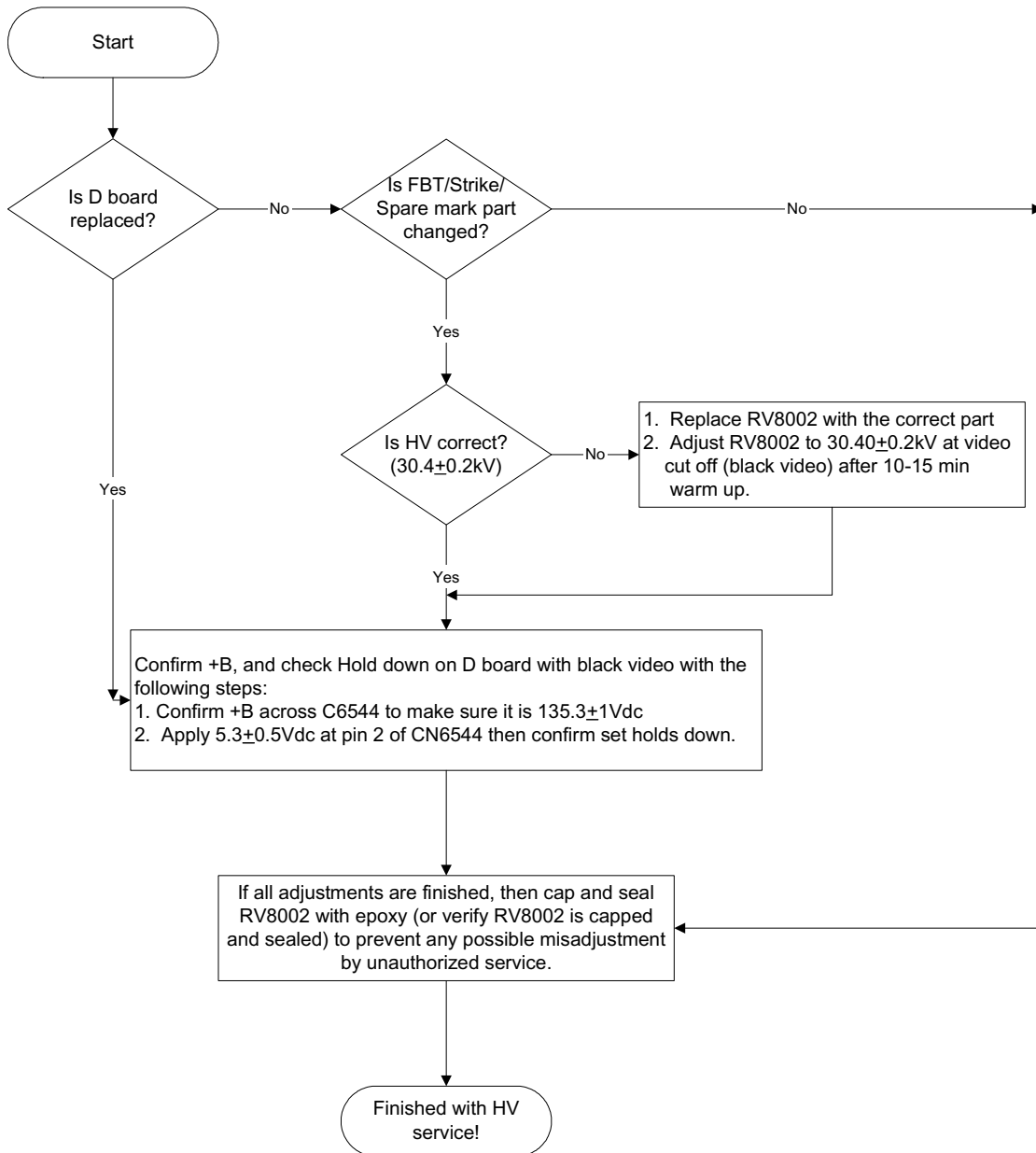
- 1. Using an external DC power supply, apply 5.3 ± 0.5 Vdc between Pin 2 of CN507 (jig connector) and ground (Pin 8); confirm set goes to hold-down (main power relay click).
- 2. Remove the external DC power supply.

3-2. B+ MAX CONFIRMATION

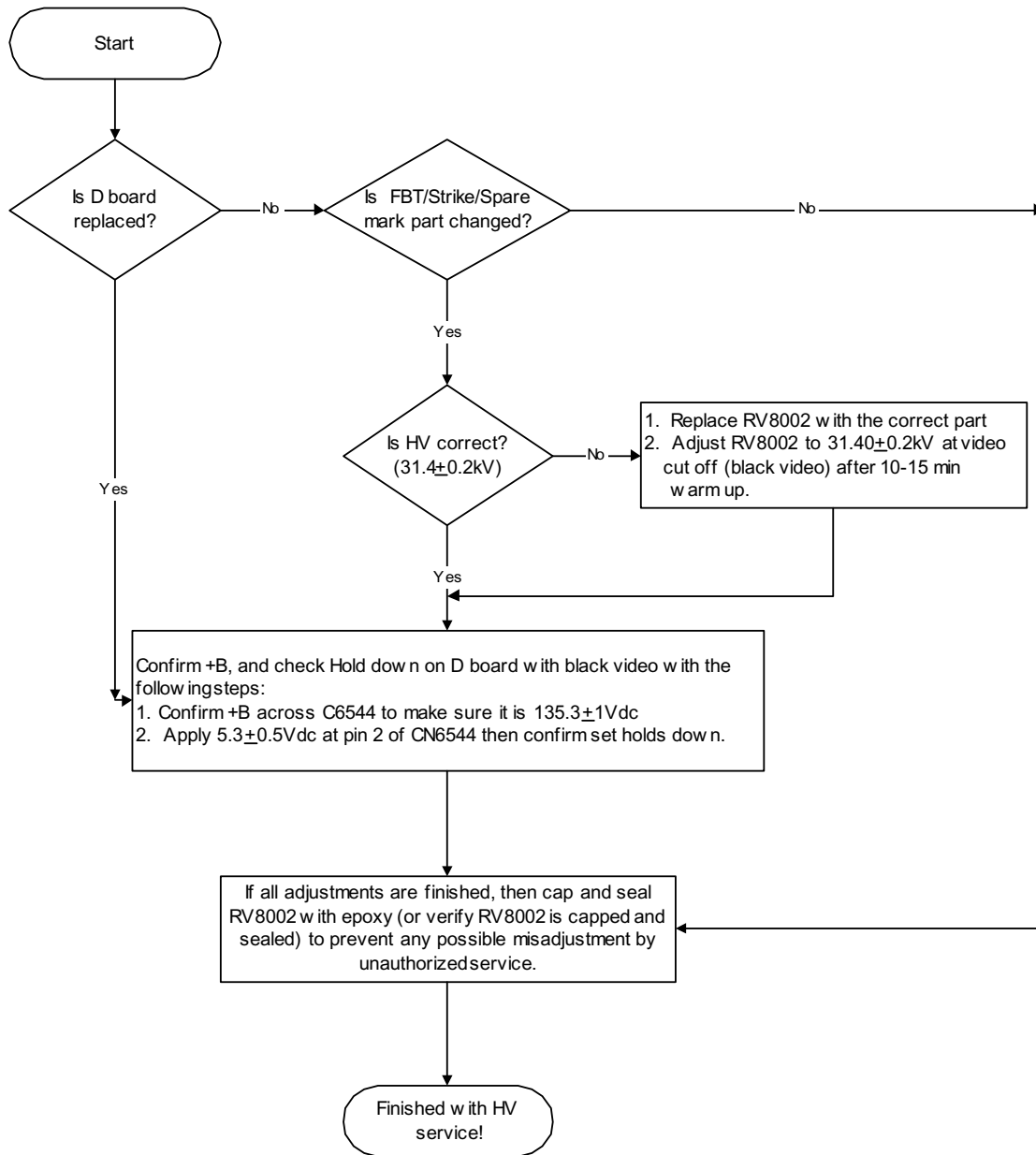
Standard 135.3 ± 1 VAC
Check Condition:
 AC input voltage: 120 (± 2) VAC
Note: If using a stabilized power supply, make sure that the distortion factor is 3% or less.
Setting Mode: Full mode
Signal Input: Cross-hatch of NTSC
Initial Setting: Standard Reset condition
Confirm Point: Across CN5509 PIN 9 for B+ of D Board

3-3. HV SERVICE FLOW CHART

KV-30XBR910 HV SERVICE FLOW CHART



KV-34XBR910 HV SERVICE FLOW CHART



SECTION 4: CIRCUIT ADJUSTMENTS

ELECTRICAL ADJUSTMENTS BY REMOTE COMMANDER

Use the Remote Commander (RM-Y188) to perform the circuit adjustments in this section.

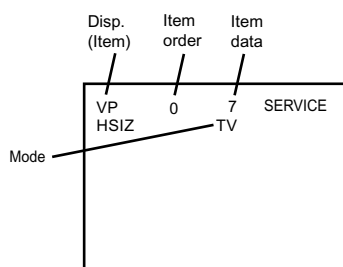
Test Equipment Required: 1. Pattern generator 2. Frequency counter 3. Digital multimeter 4. Audio oscillator

4-1. SETTING SERVICE ADJUSTMENT MODE

- Standby mode (Power off).
- Press the following buttons on the remote commander within a second of each other:

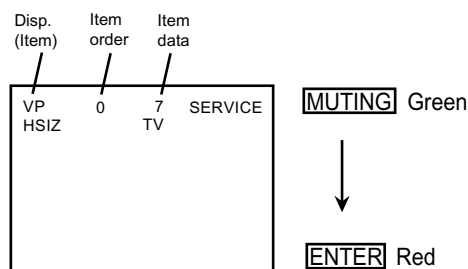
DISPLAY → Channel **5** → Sound Volume **+** → Power

4-1.1. SERVICE ADJUSTMENT MODE IN

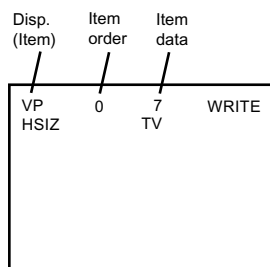


- The CRT displays the item being adjusted.
- Press **1** or **2** on the Remote Commander to select the item.
- Press **3** or **6** on the Remote Commander to change the data.
- Press **MUTING** then **ENTER** to write into memory.

4-1.2. SERVICE ADJUSTMENT MODE MEMORY



- Press **8** then **ENTER** on the Remote Commander to initialize.



- DO NOT turn off set until SERVICE appears.

4-1.3. READING THE MEMORY

- Enter into Service Mode.
- Press **0** on the Remote Commander.
- Press **ENTER** to read memory.

4-1.4. ADJUSTING THE PICTURE

- Enter into Service Mode
- Press **2** or **5** on the remote to select the device item.
- Press **1** or **4** on the remote to select an item.
- Press **3** or **6** on the remote to change the data.
- Press **MUTING** then **ENTER** to write into memory.

4-1.5. RESETTING THE DATA

Note: Be careful when using the remote! It will clear and re-initialize ALL NVM data including deflection adjustment data if not reset properly as follows:

4-1.6. RESETTING THE MID NVM DATA

- Enter into Service Mode.
- Press **7**, then **JUMP**, and then press **ENTER** on the remote.

4-1.7. RESETTING THE SYSTEM NVM DATA

- Enter into Service Mode.
- Press **7**, then **9**, and then press **ENTER** on the remote.

4-1.8. COPY FUNCTION

How to use copy function for DA4 Chassis:

- After writing your adjusted data into NVM **MUTING** then **ENTER**, copy can be made by changing copy data from **0** to **1** then **MUTING** then **ENTER** again.

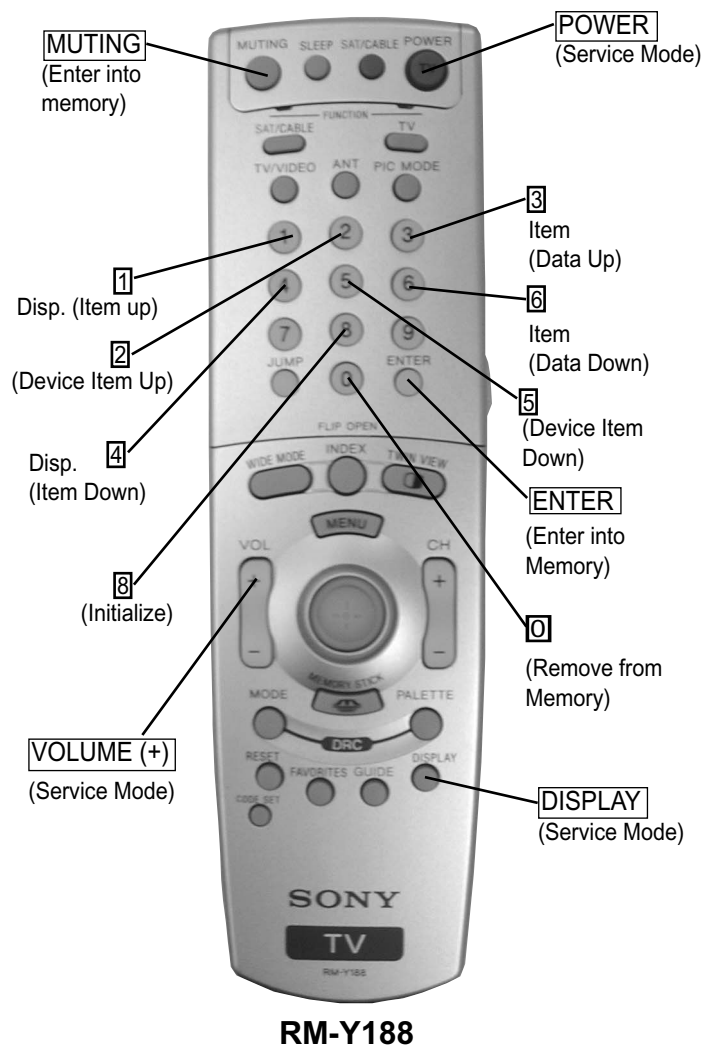
WARNING: DO NOT copy data before writing your corrected data in NVM. If data is copied before writing corrected data, old data will be copied.

- CPY1: DF/DQP DATA (CXA2170D-4 Item 6)
- CPY2: CONVERGENCE DATA (D-CONV Item 13)

4-2. MEMORY WRITE CONFIRMATION METHOD

1. After adjustment, pull out the plug from the AC outlet, then replace the plug in the AC outlet again.
2. Turn the power switch ON and set to Service Mode.
3. Call the adjusted items again to confirm they were adjusted.

4-3. REMOTE ADJUSTMENT BUTTONS AND INDICATORS



Note:
Item* uses the fixed setting in normal TV operations. {Its setting can be changed for testing in Service mode only. But the change will not be memorized after leaving Service mode.}

SERVICE DATA LISTS

Category	No	Item	Range						
2103-1				V5/V6/DVI	Others				
	0	YLEV	0-62	34	20				
	1	CLEV	0-63	40	17				
				RF	CV/YC				
	2	SCON	0-15	9	9				
	3	SCOL	0-15	2	2				
	4	SHUE	0-15	11	5				
	5	YDLY	0-3	0	0				
				RF	CV/YC	V5/V6	DVI	MemoryStick	
	6	SHAP	0-15	6	8	4	8	8	
	7	SHF0	0-3	0	0	3	0	0	
	8	PRE0	0-3	3	3	3	3	3	
	9	BPF0	0-3	3					
	10	BPFQ	0-3	2					
				RF	CV/YC				
	11	BPSW	0,1	1	0				
	12	TRAP	0,1	0					
	13	LPF	0,1	1					
				RF	CV/YC	Others			
	14	AFCG	0,1	1	0	0			
	15	CDMD	0-3	3	3	3			
	16	SSMD	0-3	0	0	0			
				RF	CV/YC	V5/V6	DVI	MemoryStick	
	17	HMSK	0,1	0	1	1	0	0	
	18	HALI	0,1	0					
				RF	CV/YC	V5/V6	DVI	MemoryStick	
	19	PPHA	0-15	7	7	7	7	7	
				V5/V6	MemoryStick	Others			
	20	CBO1	0-63	36	32	34			
	21	CRO1	0-63	38	32	32			
	22	CBO2	0-63	32					
	23	CRO2	0-63	32					
				Single	BLK = 0	BLK = 1	BLK = 2	BLK = 3	Notes:
	24	ATPD	0-3	0	1	1	2	1	Settings applied to CXA2103 (M&S)
	25	DCTR	0-3	0	2	1	3	2	Settings also based on 2170P-4/BLK data

SERVICE DATA LISTS

Category	No	Item	Range		
2103-2				DRC	VDO
	0	YLEV	0-63	41	35
	1	CLEV	0-63	31	42
				RF	CV/YC
	2	SCON	0-15	9	9
	3	SCOL	0-15	2	2
	4	SHUE	0-15	11	5
	5	YDLY	0-3	0	0
	6	SHAP	0-15	6	8
	7	SHF0	0-3	0	0
	8	PREO	0-3	3	3
	9	BPF0	0-3	3	
	10	BPFQ	0-3	0	
				RF	CV/YC
	11	BPSW	0,1	1	0
	12	TRAP	0,1	0	
				DRC	VDO
	13	LPF	0,1	1	0
				RF	CV/YC
	14	AFCG	0, 1	1	0
	15	CDMD	0-3	3	3
	16	SSMD	0-3	0	0
	17	HMSK	0,1	0	1
	18	HALI	0,1	0	
				RF	CV/YC
	19	PPHA	0-15	7	7
	20	CBO1	0-63	34	
	21	CRO1	0-63	32	

SERVICE DATA LISTS

Category	No	Item	Range	DRC		DVI	MemoryStick	Comp/PT					Note: Item* uses the fixed setting in normal TV operations. {Its setting can be changed for testing in Service mode only. But the change will not be memorized after leaving Service mode.}	
2170P-1				CV/YC	480i									
	0	YOSW	0,1	1	0	1	0	0						
	1	TCOF*	0,1	0 *										
				DRC		V5/V6		DVI		DRC/V5&6/DVI	DVI	MemoryStick		
				RF/CV/YC	480p	720p	1080i	480p VGA	720p	480i	1080i			
	2	YOF	0-15	0	7	7	7	0	0	7	7	7		
	3	CBOF	0-63	31	46	51	49	40	43	31	31	38		
	4	CROF	0-63	31	45	51	48	40	43	31	31	34		
	5	CBOP	0-63	31										
	6	CROP	0-63	31										
				Color Temp Neutral										
	7	SBRT	0-63	31										
	8	RDRV	0-63	45										
	9	GDRV	0-63	35										
	10	BDRV	0-63	34										
	11	RCUT	0-63	41										
	12	GCUT	0-63	32										
	13	BCUT	0-63	35										
				Color Temp			Note: The WBSW setting in Warm can be memorized in NVM.							
				Cool	Neutral	Warm								
	14	WBSW	0,1	0	0	Service Data *								
	15	SBOF	0-15	7		7								
16	RDOF	0-63	31		31									
17	GDOF	0-63	31		34									
18	BDOF	0-63	34		45									
19	RCOF	0-63	31		31									
20	GCOF	0-63	31		37									
21	BCOF	0-63	34		63									
22	DCOL	0-3	3											

SERVICE DATA LISTS

Category	No	Item	Range																
2170P-2				Blanking On	Blanking Off	Power Off									Note: Item* uses the fixed setting in normal TV operations. {Its setting can be changed for testing in Service mode only. But the change will not be memorized after leaving Service mode.}				
	0	PICO*	0,1	1 *	1 *	0 *													
	1	RGBS*	0-7	0 *	7 *	0 *													
	2	BLKB	0-3	3															
	3	RGBL	0-3	2															
	4	YLMT	0-3	3															
				Aging On	Aging Off														
	5	AGNG*	0-3	2 *	0 *														
	6	AKBO*	0,1	0 *															
				Other	PT														
	7	CLPP	0-3	3	3														
	8	CLPG	0,1	0	0														
	9	CLPS	0,1	0	0														
	10	PPAD	0-7	3	3														
	11	SYNP	0,1	0	0														
12	HVBT	0,1	0																
2170P-3				Vivid	RF	CV/YC	V5/V6				DVI				Memory Stick			Twin	
					480i	480p	1080i	720p	480i	480p	VGA	1080i	720p	Slide Show / Still Picture	Menu Index	MPEG Movie			
	0	SYSM	0-3		1	1	1	1	3	3	1	1	1	3	3	1	1	1	2
	1	VMLV*	0-15		7 *														
	2	VMCR	0-3		1	0	0	0	0	0	0	0	0	0	0	0	0	0	3
	3	VMLM	0-3		3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	4	VMF0	0-3		1	1	1	0	0	1	1	1	0	0	1	1	1	0	
	5	VMDL	0-15		5	5	13	13	5	5	5	13	13	1	1	1	1	10	
	6	SHOF	0-3		2	2	2	1	1	1	2	1	0	1	1	2	2	2	2
	7	SHF0	0,1		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	8	PROV	0-3		0	3	2	0	3	3	2	0	0	3	3	3	3	3	3
	9	F1LV	0-3		1	0	1	0	0	1	1	0	1	0	1	0	0	0	0
	10	LTLV	0-3		2	3	3	1	3	3	3	3	3	3	3	3	3	3	3
	11	LTMD	0,1		1	1	1	0	1	0	1	0	1	1	0	0	0	0	1
	12	CTLV	0-3		0	0	0	0	3	3	0	0	0	3	3	0	0	0	0
	13	UBOF	0-7		0	0	0	1	1	1	0	0	0	0	0	2	2	2	1
	14	UCOF	0-7		2	2	2	2	2	2	2	2	2	2	2	1	1	1	2
	15	UHOF	0-3		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	16	MIDE	0-63		7	11	15	19	23	27	31	35	44	39	43	37	37	37	56

Note:
Item* uses the fixed setting in normal TV operations. {Its setting can be changed for testing in Service mode only. But the change will not be memorized after leaving Service mode.}

SERVICE DATA LISTS

Category	No	Item	Range		RF	CV/YC	V5/V6				DVI					Memory Stick					
2170P-3				Standard			480i	480p	1080i	720p	480i	480p	VGA	1080i	720p	Slide Show/ Still Picture	Menu Index	MPEG Movie	Twin		
	0	SYSM	0-3		1	1	1	1	3	3	1	1	1	3	3	1	1	1	2		
	1	VMLV*	0-15		7 *																
	2	VMCR	0-3		1	0	0	0	0	0	0	0	0	0	0	0	0	0	3		
	3	VMLM	0-3		3	3	3	3	3	3	3	3	3	3	3	3	3	3	3		
	4	VMF0	0-3		1	1	1	1	0	0	1	1	1	0	0	1	1	1	0		
	5	VMDL	0-15		5	5	5	13	13	5	5	5	13	13	1	1	1	10			
	6	SHOF	0-3		3	3	2	0	1	1	2	0	0	1	1	3	3	3	2		
	7	SHF0	0, 1		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
	8	PROV	0-3		0	3	2	0	3	3	2	0	0	3	3	3	3	3	3		
	9	F1LV	0-3		0	0	1	1	0	0	1	1	1	0	0	0	0	0	0		
	10	LTLV	0-3		2	2	2	3	3	3	2	3	3	3	3	2	2	2	3		
	11	LTMD	0,1		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
	12	CTLV	0-3		0	0	0	0	3	3	0	0	0	3	3	0	0	0	0		
	13	UBOF	0-7		2	2	2	0	2	2	0	0	0	0	0	4	4	4	1		
	14	UCOF	0-7		1	1	2	2	1	2	2	2	2	1	2	0	0	0	0		
	15	UHOF	0-3		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
16	MIDE	0-63	5	10	14	18	22	26	30	34	44	38	42	36	36	36	55				
				Movie	RF	CV/YC	V5/V6				DVI					Memory Stick					
								480i	480p	1080i	720p	480i	480p	VGA	1080i	720p	Slide Show/ Still Picture	Menu Index	MPEG Movie	Twin	
0	SYSM	0-3	1		1	1	1	3	3	1	1	1	3	3	1	1	1	2			
1	VMLV*	0-15	7 *																		
2	VMCR	0-3	1		0	0	0	0	0	0	0	0	0	0	0	0	0	3			
3	VMLM	0-3	3		3	3	3	3	3	3	3	3	3	3	3	3	3	3			
4	VMF0	0-3	1		1	1	1	0	0	1	1	1	0	0	1	1	1	0			
5	VMDL	0-15	5		5	5	13	13	5	5	5	13	13	1	1	1	10				
6	SHOF	0-3	1		1	1	1	1	1	1	1	0	1	1	1	1	1	1			
7	SHF0	0,1	1		1	1	1	1	1	1	1	1	1	1	1	1	1	1			
8	PROV	0-3	0		3	2	1	3	3	2	1	0	3	3	3	3	3	3			
9	F1LV	0-3	0		0	0	0	0	0	0	0	1	0	0	0	0	0	0			
10	LTLV	0-3	1		1	1	2	1	1	1	2	3	1	1	1	1	1	1			
11	LTMD	0,1	1		1	1	1	1	1	1	1	1	1	1	1	1	1	1			
12	CTLV	0-3	0		0	0	2	2	0	0	0	0	2	2	0	0	0	0			
13	UBOF	0-7	0		0	0	0	0	0	0	0	0	0	0	2	2	2	0			
14	UCOF	0-7	0		0	0	0	0	0	0	0	2	0	0	0	0	0	0			
15	UHOF	0-3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
16	MIDE	0-63	3	9	13	17	21	25	29	33	44	37	41	35	35	35	54				

SERVICE DATA LISTS

Category	No	Item	Range																
2170P-3				Pro	RF	CV/YC	V5/V6				DVI					Memory Stick			Twin
					480i	480p	1080i	720p	480i	480p	VGA	1080i	720p	Slide Show/ Still Picture	Menu Index	MPEG Movie			
	0	SYSM	0-3		1	1	2	1	3	3	2	1	1	3	3	2	2	2	2
	1	VMLV*	0-15		7 *														
	2	VMCR	0-3		1	0	0	0	0	0	0	0	0	0	0	0	0	0	3
	3	VMLM	0-3		3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	4	VMF0	0-3		1	0	0	0	0	0	0	1	0	0	0	0	0	0	0
	5	VMDL	0-15		5	5	8	5	13	13	8	5	5	13	13	2	2	2	10
	6	SHOF	0-3		1	2	2	0	2	1	2	0	0	2	1	0	0	0	1
	7	SHF0	0,1		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	8	PROV	0-3		0	2	3	1	3	3	3	1	0	3	3	3	3	3	3
	9	F1LV	0-3		0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
	10	LTLV	0-3		0	0	0	0	0	0	0	0	3	0	0	0	0	0	0
	11	LTMD	0,1		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	12	CTLV	0-3		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	13	UBOF	0-7		2	2	2	1	1	1	0	0	0	0	0	2	2	2	2
	14	UCOF	0-7		0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
	15	UHOF	0-3		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	16	MIDE	0-63		0	8	12	16	20	24	28	32	44	36	40	33	33	33	53
				Vivid	Standard	Movie	Pro												
	17	VM	0-3	3	3	1	0												
	18	VMH	0-15	15	15	12	12												
	19	VMM	0-15	10	10	8	8												
	20	VML	0-15	6	6	4	4												
	21	VGAP	0-15	5															
	22	VGAS	0-15	0															
	23	VGAB	0-15	0															
	24	VGAC	0-15	0															
	25	VGAV	0-15	5															

SERVICE DATA LISTS

Category	No	Item	Range															
2170P-4				MemoryStick	Other													
	0	YCON	0,1	0	1													
				DRC	VDO (V5/V6)	VDO (DVI)	MemoryStick	PT	Note: PT = Pass Through (By pass MID) MID=0 & HDPT=0									
	1	SPIC	0-15	7	7	7	7	7										
	2	SCOL	0-63	31	31	31	31	31										
	3	SHUE	0-63	31	31	31	31	31										
	4	SPIO	0-15	7														
	5	SCLO	0-15	7														
	6	SHUO	0-15	7														
				Vivid	Standard	Movie	Pro											
	7	UPIC	0-63	63	48	39	31											
	8	UBRT	0-63	31	31	31	31											
	9	UCOL	0-63	35	31	31	31											
	10	UHUE	0-63	31	31	31	31											
	11	USHP	0-63	24	29	31	31											
	12	UTMP	0-3	2	1	0	1											
	13	RYR	0-15	8														
	14	RYB	0-15	9														
	15	GYR	0-15	9														
	16	GYB	0-15	6														
				RF	CV/YC	V5/V6				DVI				Memory Stick			Twin	
						480i	480p	1080i	720p	480i	480p	VGA	1080i	720p	Slide Show/ Still Picture	Menu Index		MPEG Movie
17	GAMM	0-3	Vivid	3	2	3	3	3	3	2	3	3	3	3	3	3	3	3
			Standard	1	1	1	1	1	1	1	1	1	1	2	2	2	2	
			Movie	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			Pro	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			GAMM = 0	GAMM = 1	GAMM = 2	GAMM = 3	Note: Settings based on GAMM data											
18	GAMS	0-15	0	8	8	8												
19	GAMR	0-15	0	4	8	12												
20	GAMG	0-15	0	4	8	12												
21	GAMB	0-15	0	4	8	12												
				RF	CV/YC	V5/V6				DVI				Memory Stick			Twin	
						480i	480p	1080i	720p	480i	480p	VGA	1080i	720p	Slide Show/ Still Picture	Menu Index		MPEG Movie
22	BLK	0-3	Vivid	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
			Standard	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
			Movie	0	0	1	0	1	0	0	1	0	0	0	0	0	0	0
			Pro	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

SERVICE DATA LISTS

Category	No	Item	Range						
2170P-4				BLK = 0	BLK = 1	BLK = 2	BLK = 3	Note: Settings based on BLK data	
	23	DCTR	0-15	0	3	7	12		
	24	APED	0-3	0	0	1	2		
	25	DSBO	0-15	7	7	7	7		
	26	IDSW*	0-7	0*					
				BLK = 0	BLK = 1	BLK = 2	BLK = 3	Note: Settings based on BLK data	
	27	ABLM	0-3	0	1	0	1		
				Single		Others			
				Others	MemoryStick 1080Vcomp VGA				
	28	ABLT	0-15	0	9	9			
	29	SPOF	0-31	0					
				BLK = 0	BLK = 1	BLK = 2	BLK = 3	Note: Settings based on BLK data	
	30	DPSQ	0,1	1	1	1	1		
	31	LRGB	0-15	3					

Note:
Item* uses the fixed setting in normal TV operations. (Its setting can be changed for testing in Service mode only. But the change will not be memorized after leaving Service mode.)

Category	No	Item	Range						
2170D-1	0	VPOS	0-63	31					
	1	VSIZ	0-63	30					
				1080Full	Others	Note: Used for PJ only			
	2	VSZO	0-63	0	0				
				WideZoom	Others				
	3	VLIN	0-15	8	8				
	4	VSCO	0-15	10	9				
	5	VCEN	0-63	31					
				1080Vcomp 480Vcomp	Others				
	6	VPIN	0-63	15	15				
	7	MVPN	0-3	0					
	8	NSCO	0-63	31					
	9	HTPZ	0-31	15					
	10	MHTZ	0-3	0					
				WideZoom	Zoom	Others			
	11	ZOOM	0,1	1	1	0			
				WideZoom	Zoom	480Full	1080Full	1080Vcomp	480Vcomp
	12	APSW	0,1	1	1	1	0	0	1
	13	ASPT	0-63	22	43	3 // 47	0 // 43	47	3 // 47
	14	SCRL	0-63	31	31	31	31	31	31
				WideZoom	Others				
	15	UVLN	0-15	4	0				
	16	LVLN	0-15	4	0				

Note:
Data variation for 16x9//4x3 models

SERVICE DATA LISTS

Category	No	Item	Range					
2170D-2	0	HCNT	0-63	31				
				1080Full 1080Vcomp	Others			
	1	HPOS	0-63	31	31			
				WideZoom	Others	Note: Different settings used for KV-34/30XBR910 models		
	2	HSIZ	0-63	49	40			
	3	SLIN	0-15	10	4			
	4	MPIN	0-15	11	10 / 5			
	5	PIN	0-63	40	31			
				WideZoom	Zoom	480Full	1080Full	1080Vcomp 480Vcomp
	6	PINO	0-15	7	7	7	7	7
				WideZoom	Others			
	7	UCP	0-63	31	35			
	8	LCP	0-63	31	35			
	9	UXCG	0-3	0 / 0	Note: Different settings (maybe) for KV-34/30XBR910 models			
	10	LXCG	0-3	0 / 0				
	11	UXCP	0-3	2				
	12	LXCP	0-3	2				
	13	XCPP	0,1	0 / 0				
				WideZoom	Others			
14	PPHA	0-63	20	20				
15	VANG	0-63	31					
16	LANG	0-63	31					
17	VBOW	0-63	31					
18	LBOW	0-63	31					

SERVICE DATA LISTS

Category	No	Item	Range							
2170D-3	0	HBLK	0,1	1						
				1080Full 1080Vcomp	Others					
	1	LBLK	0-63	50	51					
	2	RBLK	0-63	31	27					
				WideZoom	Zoom	480Full 1080Full	480Vcomp 1080Vcomp			
	3	VBLK	0,1	0	0	1	1			
				WideZoom	Zoom	480Full	1080Full	1080Vcomp	480Vcomp	Note: Data variation for 16x9//4x3 models
	4	TBLK	0-15	12	7	2	4	10	2 // 8	
	5	BBLK	0-15	15	7	8	6	14	8 // 13	
				1080Full 1080Vcomp	Others					
	6	AFCM	0-3	2	3					
				1080Vcomp 480Vcomp	Others	Note: Data variation for 16x9//4x3 models				
	7	JUMP	0,1	0 // 1	0					
			WideZoom	Zoom	480Vcomp 480Full	1080Vcomp 1080Full				
8	VDJP	0,1	1	1	0	1				
			1080Vcomp 1080Full	Others						
9	VDST	0,1	0	0						
			WideZoom	Zoom	480Full 480Vcomp	1080Full 1080Vcomp				
10	AKBT	0-31	15	15	20	16				

SERVICE DATA LISTS

Category	No	Item	Range			
2170D-4				1080Vcomp		Note: Different settings used for KV-34/30XBR910 models
				480Vcomp	Others	
	0	QPAM	0-63	22 / 33	22 / 33	
	1	QPAV	0-63	41 / 46	41 / 46	
	2	QPAP	0-15	6	6	
	3	QPDV	0-63	36 / 29	36 / 29	
	4	QPDV	0-63	55 / 59	55 / 59	
	5	QPDV	0-15	6	6	
	6	CPY1*	0,1	0 *		Different settings (maybe) for KV-34/30XBR910 models
	7	DF	0-63	32 / 32		
	8	DQP	0-63	34 / 34		
2170D-5	0	VFRQ	0-3	1		
	1	VON	0,1	1		
	2	EWDC	0,1	0		
	3	MS15	0,1	0		
	4	HFRQ	0-255	80		
	5	HFRX	0-63	25		
	6	VMPS	0,1	0		
	7	INTR	0,1	0		
	8	VLNL	0-3	0		
	9	VLNH	0-255	0		
	10	AGCS	0,1	0		

Note:
Item* uses the fixed setting in normal TV operations. (Its setting can be changed for testing in Service mode only. But the change will not be memorized after leaving Service mode.)

Category	No	Item	Range			
D-CONV (CXA8070)				Vcomp	Others	
				480p/1080i		
	0	YBWU	0-63	31	31	
	1	YBWL	0-63	31	31	
	2	RSAP	0-63	31	31	
	3	RUMB	0-63	31	31	
	4	RUBW	0-63	31	31	
	5	RLMB	0-63	31	31	
	6	RLBW	0-63	31	31	
	7	LSAP	0-63	31	31	
	8	LUMB	0-63	31	31	
	9	LUBW	0-63	31	31	
	10	LLMB	0-63	31	31	
	11	LLBW	0-63	31	31	
	12	CADJ	0-63	29		Note: Different settings used for KV-34/30XBR910 models
	13	HVCA	0-63	63		
				Vcomp	Others	
				480p/1080i		
	14	SRSP	0-63	63 / 55	63 / 55	
	15	SRUM	0-63	31	31	
	16	SRUB	0-63	63 / 45	63 / 45	
	17	SRLM	0-63	31	31	
	18	SRLB	0-63	63 / 45	63 / 45	
	19	SLSP	0-63	57 / 45	57 / 45	
	20	SLUM	0-63	31	31	
	21	SLUB	0-63	63 / 40	63 / 40	
	22	SLLM	0-63	31	31	
	23	SLLB	0-63	63 / 40	63 / 40	
	24	CPY2*	0,1	0 *		

Note:
Item* uses the fixed setting in normal TV operations. (Its setting can be changed for testing in Service mode only. But the change will not be memorized after leaving Service mode.)

SERVICE DATA LISTS

Category	No	Item	Range										
LANDING	0	LT	0-255	127	Note: Different settings used for KV-34/30XBR910 models								
	1	LB	0-255	127									
	2	RT	0-255	127									
	3	RB	0-255	127									
	4	EWSP	0-15	5 / 7									
	5	ENSW	0,1	0									
	6	TESW	0,1	0									
	7	DHMT	0,1	0									
	8	LDVM	0-3	0									
	9	LVSW	0,1	0									
	10	LVPH	0-255	0									
					LDVM = 0		LDVM = 1		LDVM = 2		LDVM = 3		Note: Different settings used for KV-34/30XBR910 models
					Wide Zoom	Others	Wide Zoom	Others	Wide Zoom	Others	Wide Zoom	Others	
11	HSZO	0-15	0	0	0	0	1	1	2 / 3	2 / 3			
12	SLINO	0-15	0	0	0	0	1	1	2 / 1	2 / 1			
13	MPNO	0-15	0	0	3 / 2	3 / 2	6 / 3	6 / 3	9 / 4	9 / 4			
14	PINO	0-15	0	0	2	2	4 / 2	4 / 2	6 / 3	6 / 3			

Category	No	Item	Range					
CXA2151				V5&6 720p/1080i	Others	MemoryStick		
	0	MTRX*	0-3	1 *	0 *	0 *		
				PT	Others	Note: PT = Pass Through		
	1	GAIN	0-3	7	7			
				V5 480i/480p/ 720p/1080i/ No Sync	V6 480i/480p/ 720p/1080i/ No Sync	DVI 480i/480p/ 720p/1080i/ No Sync	MemoryStick (V board Only)	Others
	2	FIXS	0-3	0	0	0	0	0
				PT	Others			
	3	CBGN	0-15	7	7			
	4	CRGN	0-15	8	8			
	5	YGN	0-15	8	8			
	6	VTC	0-3	0				
				Tristate=1	Tristate=0			
	7	HTC*	0,1	0 *	1 *			
	8	HWID	0-3	1				
	9	HSEP	0,1	1				
				V5&6/DVI/MS 1080i	Others			
	10	HMSK*	0,1	0 *	1 *			
				V5 480i/480p/ 720p/1080i/ No Sync	V6 480i/480p/ 720p/1080i/ No Sync	DVI 480i/480p/ 720p/1080i/ No Sync	MemoryStick (V board Only)	Others
	11	FRGB	0,1	0	0	0	0	0

Note:
Item* uses the fixed setting in normal TV operations.
{Its setting can be changed for testing in Service
mode only. But the change will not be memorized
after leaving Service mode.}

SERVICE DATA LISTS

Category	No	Item	Range					
MID1	0	DHPH	0-255	109				
	1	DVPH	0-63	20				
	2	DHAR	0-255	240				
	3	DVAR	0-255	135				
	4	DHPW	0-63	55				
	5	DVPW	0-7	5				
					Single	Twin	Freeze	Favorites
					480i	Others		Index
	6	DYCD	0-63	3	0	2	2	2
					Table-0	Table-1	Table-2	Table-3
	7	DYSD	0-7	7	4	2	1	
					Single			Favorites
					VGA	Others		Index
					Normal	Others	Normal	VGA
	8	MDHP	0-255	174	72	156	0	40
					Single		Favorites	Index
					480i/480p	VGA	Others	VGA
	9	MDVP	0-255	30	66	0	34	86
					Single		Favorites	Index
					VGA	Others		VGA
					Normal	Others	Normal	Others
	10	MDHS	0-255	162	204	162	240	155
					Single		Favorites	Index
					480i/480p	VGA	Others	VGA
	11	MDVS	0-255	120	102	135	103	77
					Twin/Freeze	Favorites	Index	
	12	MLHP	0-255	36	31	31		
	13	MLVP	0-255	8	30	30		
					Favorites			
	14	SDHP	0-255	167				
	15	SDVP	0-255	5				
	16	SDHS	0-255	115				
	17	SDVS	0-255	79				
	18	PDHP	0-255	0				
	19	PDVP	0-255	0				
	20	PDHS	0-255	0				
	21	PDVS	0-255	0				

Category	No	Item	Range				
MID1				1080i Single	Others		
	22	DPSW	0,1	0	0		
	23	MDLO	0-63	12			
				Single	Others		
				Normal	Others	MemoryStick	
	24	BCOL	0-15	1	1	0	1
	25	DYSS	0-3	1			
				Index			
	26	OSDH	0-63	32			
	27	OSDV	0-63	16			

SERVICE DATA LISTS

Category	No	Item	Range					
MID2				Single	480i		YC	
	0	DRHP	0-255		Normal	Others	Normal	Others
	1	DRHS	0-255		153	120	154	117
	2	DRVVP	0-63		162	180	162	180
	3	DRVS	0-255		37	37	37	37
					120	120	120	120
				Twin-Left	480i	YC		
	0	DRHP	0-255		146	148		
	1	DRHS	0-255		164	164		
	2	DRVVP	0-63		57	57		
	3	DRVS	0-255		110	110		
				Twin-Right	YC			
	0	DRHP	0-255		153			
	1	DRHS	0-255		164			
	2	DRVVP	0-63		57			
	3	DRVS	0-255		110			
				Freeze	480i	YC		
	0	DRHP	0-255		153	153		
	1	DRHS	0-255		162	162		
	2	DRVVP	0-63		57	57		
	3	DRVS	0-255		110	110		
				Favorites (Main)	480i		YC	
	0	DRHP	0-255		Full	Vcomp	Full	Vcomp
	1	DRHS	0-255		140	140	140	140
	2	DRVVP	0-63		165	165	165	165
	3	DRVS	0-255		37	57	37	57
					120	110	120	110
				Favorites (Sub)	YC			
	0	DRHP	0-255		153			
	1	DRHS	0-255		171			
	2	DRVVP	0-63		28			
	3	DRVS	0-255		118			
				Index (Main)	480i		YC	
	0	DRHP	0-255		Full	Vcomp	Full	Vcomp
	1	DRHS	0-255		140	140	140	140
	2	DRVVP	0-63		165	165	165	155
	3	DRVS	0-255		37	57	37	57
					120	110	120	110
				Index (Sub)	YC			
0	DRHP	0-255	158					
1	DRHS	0-255	162					
2	DRVVP	0-63	57					
3	DRVS	0-255	110					

SERVICE DATA LISTS

Category	No	Item	Range											
MID3				Single	1080i	720p	480p		480i		VGA			
	0	VDHP	0-255					Normal	Others	Normal	Others	Normal	Others	
	1	VDHS	0-255			107	137		200	152	76	56	170	170
	2	VDVE	0-63			240	161		216	240	162	180	229	229
	3	VDVS	0-255			19	24		37	37	17	17	34	34
						135	180		120	120	60	60	120	120
				Twin-Left	1080i	720p	480p	480i	VGA					
	0	VDHP	0-255			141	163	192	71	213				
	1	VDHS	0-255			221	147	219	164	209				
	2	VDVE	0-63			43	54	57	27	45				
	3	VDVS	0-255			123	165	110	55	110				
					Twin-Right	YC								
	0	VDHP	0-255			73								
	1	VDHS	0-255			164								
	2	VDVE	0-63			27								
	3	VDVS	0-255			55								
				Freeze		1080i	720p	480p	480i	VGA				
	0	VDHP	0-255			151	169	200	74	212				
	1	VDHS	0-255			218	145	216	162	208				
	2	VDVE	0-63			43	54	57	27	45				
	3	VDVS	0-255			123	165	110	55	110				
					Favorites (Main)	1080i		720p	480p		480i		VGA	
				Full		Vcomp	Full		Vcomp	Full	Vcomp	Full	Vcomp	
	0	VDHP	0-255			136	136	158	184	184	68	68	169	169
	1	VDHS	0-255			222	222	148	220	220	165	165	229	229
	2	VDVE	0-63			43	43	55	37	57	17	27	34	34
	3	VDVS	0-255			123	123	165	120	110	60	55	120	120
				Favorites (Sub)	YC									
	0	VDHP	0-255			75								
	1	VDHS	0-255			171								
	2	VDVE	0-63			13								
	3	VDVS	0-255			59								
					Index (Main)	1080i		720p	480p		480i		VGA	
				Full		Vcomp	Full		Vcomp	Full	Vcomp	Full	Vcomp	
	0	VDHP	0-255			136	136	158	184	184	68	68	169	169
	1	VDHS	0-255			222	222	148	220	220	165	165	229	229
	2	VDVE	0-63			43	43	55	37	57	17	27	34	34
	3	VDVS	0-255			123	123	165	120	110	60	55	120	120

SERVICE DATA LISTS

Category	No	Item	Range		YC					
MID3				Index (Sub)						
	0	VDHP	0-255		76					
	1	VDHS	0-255		162					
	2	VDVE	0-63		27					
	3	VDVS	0-255		55					
						YC	480i	1080i	720p	480p
	4	VDVO	0-3		0	0	0	0	0	0
	5	VCPO	0-255		42	42	72	88	122	122
	6	VCWD	0-7		1	1	3	3	3	3
	7	VYCD	0-63		0	0	0	0	0	0
	8	VSTP	0-255		62	62	136	183	126	129
	9	VSTT	0-15		0	0	0	0	0	0
	10	VHSC	0-255		130	130	130	130	130	130
	11	VFRV	0,1		0	0	0	0	0	0

Category	No	Item	Range																
MID5	0	POP	0-63	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
	1	MHLY	0-3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	2	MHLC	0-3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	3	MVLY	0-3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4	MVLC	0-3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5	MHYR	0-3	0	1	1	1	2	3	3	2	0	0	2	1	0	0	1	1
	6	MHYL	0-3	0	1	1	1	1	2	2	2	0	1	2	1	0	0	1	2
	7	MHYE	0-7	0	2	2	5	6	7	7	7	0	2	4	7	0	0	7	7
	8	MHYO	0,1	0	1	1	1	1	1	1	1	0	1	1	1	1	1	0	0
	9	MHCR	0-3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	10	MHCL	0-3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	11	MHCE	0-7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	12	MHCO	0-1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	13	MVYR	0-3	0	0	0	0	1	2	2	2	0	1	1	1	0	0	1	2
	14	MVYL	0-3	0	0	0	0	1	1	1	1	0	1	1	1	0	0	1	2
	15	MVYE	0-7	0	0	0	0	1	1	1	1	0	3	3	3	0	0	4	3
	16	MVCR	0-3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	17	MVCL	0-3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	18	MVCE	0-7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	POP	0-63	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
	1	MHLY	0-3	1	1	1	1	0	0	0	0	0	0	0	0	1	1	1	1
	2	MHLC	0-3	3	3	3	3	0	0	0	0	0	0	0	0	3	3	3	3
	3	MVLY	0-3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4	MVLC	0-3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5	MHYR	0-3	1	1	1	0	0	0	0	0	0	0	0	0	0	0	1	1
	6	MHYL	0-3	1	1	1	1	0	1	1	1	1	1	1	1	0	0	1	2
	7	MHYE	0-7	2	2	2	7	0	4	7	7	2	4	7	7	0	0	7	7
	8	MHYO	0,1	1	1	1	1	0	0	0	1	0	0	0	0	1	1	0	0
	9	MHCR	0-3	0	0	0	0	0	0	1	1	0	0	1	1	0	0	0	0
	10	MHCL	0-3	0	0	0	0	0	0	1	1	0	0	1	1	0	0	0	0
	11	MHCE	0-7	0	0	0	0	0	0	4	4	0	0	4	4	0	0	0	0
	12	MHCO	0-1	0	0	0	0	0	0	1	1	0	0	1	1	0	0	0	0
	13	MVYR	0-3	0	1	1	0	0	0	0	0	0	0	0	0	0	0	1	2
	14	MVYL	0-3	0	1	1	1	0	0	1	1	0	0	1	1	0	0	1	2
	15	MVYE	0-7	0	1	1	4	0	0	4	4	0	0	4	4	0	0	4	3
	16	MVCR	0-3	0	0	0	0	0	0	1	1	0	0	1	1	0	0	0	0
	17	MVCL	0-3	0	0	0	0	0	0	1	1	0	0	1	1	0	0	0	0
	18	MVCE	0-7	0	0	0	0	0	0	4	4	0	0	4	4	0	0	0	0

SERVICE DATA LISTS

Category	No	Item	Range																	
MID5	0	POP	0-63	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	
	1	MHLY	0-3	1	1	1	1	0	0	0	0	0	0	0	0	1	0	0	0	
	2	MHLC	0-3	3	3	3	3	0	0	0	0	0	0	0	0	3	0	0	0	
	3	MVLY	0-3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4	MVLC	0-3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5	MHYR	0-3	1	1	1	0	0	0	0	0	0	0	0	0	1	0	0	0	
	6	MHYL	0-3	1	1	1	1	0	1	1	1	1	1	1	1	1	0	0	0	
	7	MHYE	0-7	2	2	2	7	0	4	7	7	2	4	7	7	2	0	0	0	
	8	MHYO	0,1	1	1	1	1	0	0	0	1	0	0	0	0	1	0	0	0	
	9	MHCR	0-3	0	0	0	0	0	0	1	1	0	0	1	1	0	0	0	0	
	10	MHCL	0-3	0	0	0	0	0	0	1	1	0	0	1	1	0	0	0	0	
	11	MHCE	0-7	0	0	0	0	0	0	4	4	0	0	4	4	0	0	0	0	
	12	MHCO	0-1	0	0	0	0	0	0	1	1	0	0	1	1	0	0	0	0	
	13	MVYR	0-3	0	1	1	0	0	0	0	0	0	0	0	0	1	0	0	0	
	14	MVYL	0-3	0	1	1	1	0	0	1	1	0	0	1	1	1	0	0	0	
	15	MVYE	0-7	0	1	1	4	0	0	4	4	0	0	4	4	1	0	0	0	
	16	MVCR	0-3	0	0	0	0	0	0	1	1	0	0	1	1	0	0	0	0	
	17	MVCL	0-3	0	0	0	0	0	0	1	1	0	0	1	1	0	0	0	0	
	18	MVCE	0-7	0	0	0	0	0	0	4	4	0	0	4	4	0	0	0	0	
		0	POP	0-63	48	49	50	51	52	53	54	55	56							
		1	MHLY	0-3	0	0	0	0	0	0	0	0	0							
		2	MHLC	0-3	0	0	0	0	0	0	0	0	0							
		3	MVLY	0-3	0	0	0	0	0	0	0	0	0							
		4	MVLC	0-3	0	0	0	0	0	0	0	0	0							
		5	MHYR	0-3	0	0	0	0	0	0	0	0	0							
		6	MHYL	0-3	0	0	1	1	1	0	0	0	0							
		7	MHYE	0-7	0	0	4	2	5	0	0	0	0							
		8	MHYO	0,1	0	0	0	0	0	0	0	0	0							
		9	MHCR	0-3	0	0	0	1	1	0	0	0	0							
		10	MHCL	0-3	0	0	0	1	1	0	0	0	0							
		11	MHCE	0-7	0	0	0	2	2	0	0	0	0							
		12	MHCO	0-1	0	0	0	1	1	0	0	0	0							
		13	MVYR	0-3	0	0	0	0	0	0	0	0	0							
		14	MVYL	0-3	0	0	0	1	1	0	0	0	0							
		15	MVYE	0-7	0	0	0	1	2	0	0	0	0							
		16	MVCR	0-3	0	0	0	1	1	0	0	0	0							
		17	MVCL	0-3	0	0	0	1	1	0	0	0	0							
	18	MVCE	0-7	0	0	0	2	2	0	0	0	0								

SERVICE DATA LISTS

Category	No	Item	Range	
MID5				MemoryStick
	19	SHLY	0-7	0
	20	SHLC	0-7	0
	21	SVLY	0-7	0
	22	SVLC	0-7	0
	23	SHYR	0-3	0
	24	SHYL	0-3	0
	25	SHYE	0-7	0
	26	SHYO	0,1	0
	27	SHCR	0-3	0
	28	SHCL	0-3	0
	29	SHCE	0-7	0
	30	SHCO	0,1	0
	31	SVYR	0-3	0
	32	SVYL	0-3	0
	33	SVYE	0-7	0
	34	SVCR	0-3	0
	35	SVCL	0-3	0
	36	SVCE	0-7	0

Category	No	Item	Range			
CXA3506R				480i	Others	
	0	MCON	0,1	64	64	
	1	SCOR	0-255	128	128	
	2	SCOG	0-255	128	128	
	3	SCOB	0-255	128	128	
	4	RGB	0-255	0	0	
AUDIO	0	ASYS	0,1	0		
	1	TRCV	0-3	2		
	2	BACV	0-3	0		
	3	MDCV	0-3	2		
	4	SVHI	0-7	4		
	5	SVLO	0-7	4		
	6	MIDL	0-15	10		
	7	LOFQ	0-7	0		
	8	SBAS	0-15	7		
	9	BSFQ	0-15	0		
	10	STRE	0-15	9		
	11	TRFQ	0-15	7		
	12	PSEF	0-15	5		
	13	AGCL	0-15	3		
				TruSurround	Simulated	SteadySound
	14	BBE	0,1	1	1	1
	15	BBEP	0-7	6	6	6
	16	BBEL	0-7	3	3	3
	17	BB2P	0-7	6	6	6
	18	BB2L	0-7	3	3	3
	19	TRS1	0-7	4		
	20	TRS2	0-7	2		

SERVICE DATA LISTS

Category	No	Item	Range							
SNNR	0	MODE	0-3	0						
	1	SNNR	0-7	0						
				WSLT- A	WSLT- B	WSLT- C	WSLT- D	WSLT- E	WSLT- F	WSLT- G
	2	WSLT	0-255	15	31	45	63	85	110	127
				SNNR = 0	SNNR = 1	SNNR = 2	SNNR = 3	SNNR = 4	SNNR = 5	SNNR = 6
	3	CPFG	0-15	0	0	1	1	2	2	3
	4	CPFT	0-3	0	0	0	0	0	0	0
	5	CCOR	0-3	0	0	1	1	1	1	1
	6	CHCG	0,1	0	1	1	1	1	1	1
	7	CAPG	0-7	0	0	0	0	0	0	0
	8	3SHP	0-15	0	0	1	1	2	2	3
	9	NYNR	0-15	0	1	2	2	3	3	4
	10	NCNR	0-15	0	1	2	2	3	3	4
	11	NYMG	0-3	0	0	0	0	0	0	0
	12	NCMG	0-3	0	0	0	0	0	0	0
	13	NYLT	0-15	0	1	1	2	3	4	6
	14	NYNC	0-15	0	0	2	2	3	3	4
	15	NYCO	0,1	0	0	1	1	1	1	1
	16	7SHP	0-63	0	0	1	1	3	3	3
	17	7YF1	0-3	0	0	1	1	2	2	2
	18	7LTI	0-3	0	0	0	0	0	0	0
	19	7CTI	0-3	0	0	0	0	0	0	0
	20	7VML	0-15	0	0	0	0	0	0	0
	21	7VMC	0-3	0	0	1	1	2	2	2
	22	MIDD	0-63	0	0	1	1	2	2	2

Category	No	Item	Range	
CCD	0	HPRM	0-255	60
	1	HPRS	0-255	60
	2	YSYM	0,1	0
	3	CCDI	0-7	3
	4	CRIP	0-7	4
	5	PHLD	0,1	0
	6	CHMK	0-63	54
	7	LANG*	0-15	0 *
	8	DATA	0,1	0
	9	VCHP	0,1	0
	10	CLMP	0,1	0
	11	SYSV	0-7	4
	12	ID1	0,1	1
	13	ID1M*	0-7	1 *
	14	FPOL	0,1	0
	15	BWHT	0,1	0
	16	MESH	0,1	0
	17	BNBB	0-3	1
	18	BNBG	0-3	1
	19	BNBR	0-3	0
	20	CMP1	0-7	2
	21	CMP2	0-7	5
	22	CMP3	0-7	3
	23	CWHT	0-7	3
	24	VSDW	0,1	1
	25	BFRQ	0,1	0
	26	BPOS	0,1	0
	27	BFRM	0,1	1
	28	BTIM	0,1	0

Note:
Item* uses the fixed setting in normal TV operations. (Its setting can be changed for testing in Service mode only. But the change will not be memorized after leaving Service mode.)

SERVICE DATA LISTS

[illegible]

SERVICE DATA LISTS

Category	No	Item	Range								
3DNR				Vivid		Standard		Movie		Pro	
				480i	Others	480i	Others	480i	Others	480i	Others
	41	YMG	0-3	3	3	3	3	3	3	3	3
	42	YEG	0,1	1							
				Vivid		Standard		Movie		Pro	
				480i	Others	480i	Others	480i	Others	480i	Others
	43	YEL	0-15	6	6	6	6	6	6	6	6
	44	YLM	0-127	6	6	6	6	6	6	6	6
	45	CLV	0-15	15	15	10	10	10	10	8	8
	46	CNT	0,1	1							
	47	CPL	0,1	1							
				Vivid		Standard		Movie		Pro	
				480i	Others	480i	Others	480i	Others	480i	Others
	48	CMG	0-3	3	3	3	3	3	3	3	3
	49	CCR	0-31	6	6	6	6	6	6	6	6
	50	CLM	0-127	6	6	6	6	6	6	6	6
	51	NVSL	0-255	20							
	52	NVSH	0,1	0							
	53	NHS	0-127	16							
	54	NVEL	0-255	244							
	55	NVEH	0,1	0							
	56	NHE	0-127	120							
				Vivid		Standard		Movie		Pro	
				480i	Others	480i	Others	480i	Others	480i	Others
	57	YNG	0-3	3	3	3	3	3	3	3	3
	58	COR	0,1	0	0	0	0	0	0	0	0
	59	LPF	0,1	0	0	0	0	0	0	0	0
	60	YLT	0-15	0	0	0	0	0	0	0	0
	61	YNC	0-15	15	15	10	10	10	10	8	8
	62	YCO	0,1	0	0	0	0	0	0	0	0
	63	ADTH	0,1	0							

SERVICE DATA LISTS

Category	No	Item	Range							
DRCV	0	MFVR	0,1	0						
	1	ISEL	0,1	1						
	2	ORES	0-255		RF	CV/YC	V5/V6-480i	DVI		
					Vivid	128	128	128	128	
					Standard	128	128	128	128	
					Movie	128	128	133	133	
					Pro	128	128	133	133	
	3	ONCT	0-255		RF	CV/YC	V5/V6-480i	DVI		
					Vivid	128	128	128	128	
					Standard	128	128	128	128	
					Movie	128	128	128	128	
					Pro	128	128	128	128	
	4	AINI	0-127		Custom 1	Custom 2	Custom 3			
					0	49	79			
	5	BINI	0-127		24	54	89			
	6	FMAT	0,1	0						
					RF	Others				
	7	FMTH	0-3		1	1				
	8	FSEL	0,1	1						
	9	CDLY	0-3	2						
	10	LMIT	0,1	0						
					Vivid	Standard	Movie	Pro		
	11	LMLV	0-3		2	2	2	2		
	12	LMSL	0,1	1						
	13	VDLY	0-3	1						
	14	VDPR	0-3	3						
	15	WPLL	0-3	2						
	16	CRCT	0,1	0						
					SNNR = 1	SNNR = 2	SNNR = 3	SNNR = 4	SNNR = 5	SNNR = 6
	17	NRA	0-255	0	0	0	0	0	0	0
	18	NRB	0-255	128	128	128	128	128	128	128

SERVICE DATA LISTS

Category	No	Item	Range					
OP	0	DLY1	0-31	4				
	1	DLY2	0-31	12				
	2	DLY3	0-15	7				
	3	OSDH	0-255	20				
					Vivid	Standard	Movie	Pro
	4	HDPT	0,1	1	1	1	1	Note: CXA2170 Settings
	5	MSBG	0-255	0				
	6	AACK	0-3	2				
	7	RAMW*	0-3	0 *				

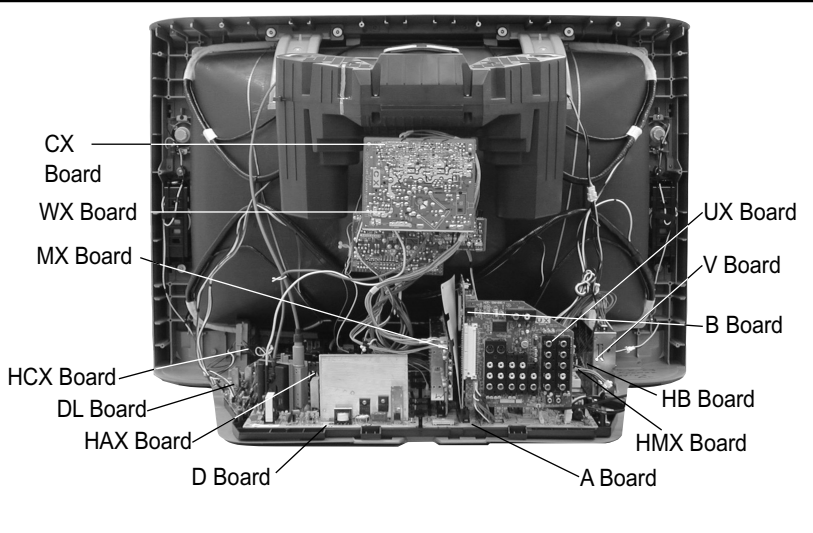
Note:
Item* uses the fixed setting in normal TV operations. (Its setting can be changed for testing in Service mode only. But the change will not be memorized after leaving Service mode.)


4-5.ID MAP TABLE


Category	No	Item	Range	KV-34XBR910		KV-30XBR910		
ID				US	CND	US	CND	Note
	0	ID0	0-255	89	89	89	89	
	1	ID1	0-255	255	255	255	255	
	2	ID2	0-255	239	239	239	239	
	3	ID3	0-255	111	95	111	95	Vchip-US&CND settings
	4	ID4	0-255	203	203	203	203	
	5	ID5	0-255	251	251	251	251	Setting using V board (Viper)
	6	ID6	0-255	254	254	254	254	
	7	ID7	0-255	29	29	29	29	


SECTION 5: DIAGRAMS


5-1. CIRCUIT BOARDS LOCATION



The components identified by shading and  symbol are critical for safety. Replace only with part number specified.

The symbol  indicates a fast operating fuse and is displayed on the component side of the board. Replace only with fuse of the same rating as marked.

Les composants identifiés par un trame et une marque  sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.

Le symbole  indique une fusible a action rapide. Doit etre remplace par une fusible de meme yaleur, comme maque.

5-2. PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS INFORMATION


All capacitors are in μF unless otherwise noted. pF : μpF 50WV or less are not indicated except for electrolytics and tantalums.


All electrolytics are in 50V unless otherwise specified.


All resistors are in ohms. $\text{k}\Omega=1000\Omega$, $\text{M}\Omega=1000\text{k}\Omega$


Indication of resistance, which does not have one for rating electrical power, is as follows: Pitch : 5mm
Rating electrical power : $\frac{1}{4}$ W

$\frac{1}{4}$ W in resistance, $\frac{1}{10}$ W and $\frac{1}{16}$ W in chip resistance.


 : nonflammable resistor

 : fusible resistor

 : internal component

 : panel designation and adjustment for repair

\perp : earth ground

 : earth-chassis

All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

Readings are taken with a color-bar signal input.


Readings are taken with a 10M Ω digital multimeter.


Voltages are DC with respect to ground unless otherwise noted.


Voltage variations may be noted due to normal production tolerances.

All voltages are in V.


S : Measurement impossibility.



 : B+line.

 : B-line. (Actual measured value may be different).



 : signal path. (RF)

Circled numbers are waveform references.


The components identified by  in this basic schematic diagram have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be necessary, replace only with the value originally used.

When replacing components identified by , make the necessary adjustments as indicated. If the results do not meet the specified value, change the component identified by  and repeat the adjustment until the specified value is achieved.

When replacing the parts listed in the table below, it is important to perform the related adjustments.

Part Replaced ()	Adjustment ()
D BOARD: IC6503, IC8001, IC8005, IC8004, IC8104, D8022, R8016, R8079, R8046, R8052, R8019, R8014, R8015, R8017, R8078, R8165, R8072, R8082, R8091, R8095	HV ADJUST RV8002

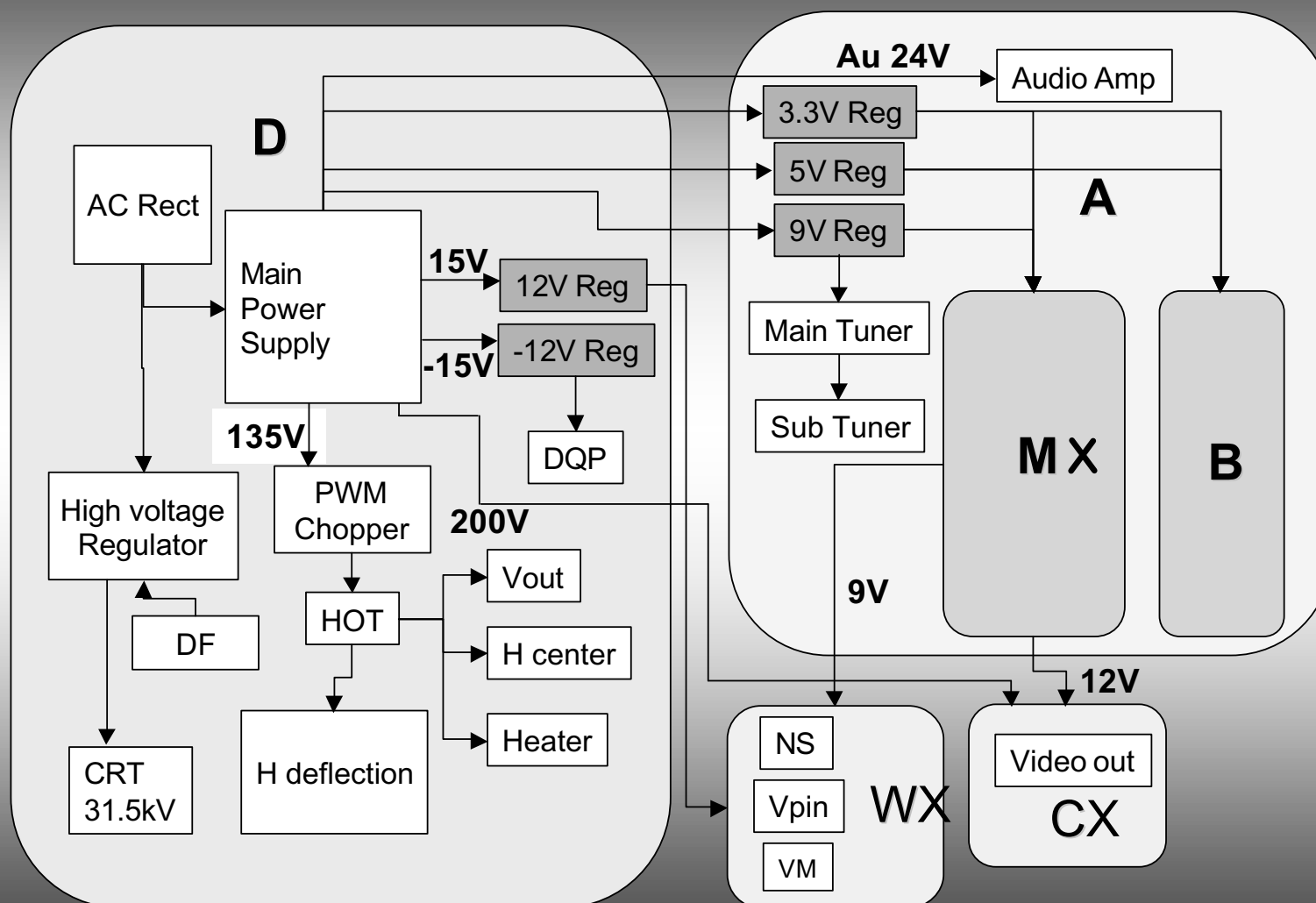
REFERENCE INFORMATION

RESISTOR		CAPACITOR	
: RN	METAL FILM	: TA	TANTALUM
: RC	SOLID	: PS	STYROL
: FPRD	NONFLAMMABLE CARBON	: PP	POLYPROPYLENE
: FUSE	NONFLAMMABLE FUSIBLE	: PT	MYLAR
: RW	NONFLAMMABLE WIREWOUND	: MPS	METALIZED POLYESTER
: RS	NONFLAMMABLE METAL OXIDE	: MPP	METALIZED POLYPROPYLENE
: RB	NONFLAMMABLE CEMENT	: ALB	BIPOLAR
: 	ADJUSTMENT RESISTOR	: ALT	HIGH TEMPERATURE
		: ALR	HIGH RIPPLE
COIL			
: LF-8L	MICRO INDUCTOR		

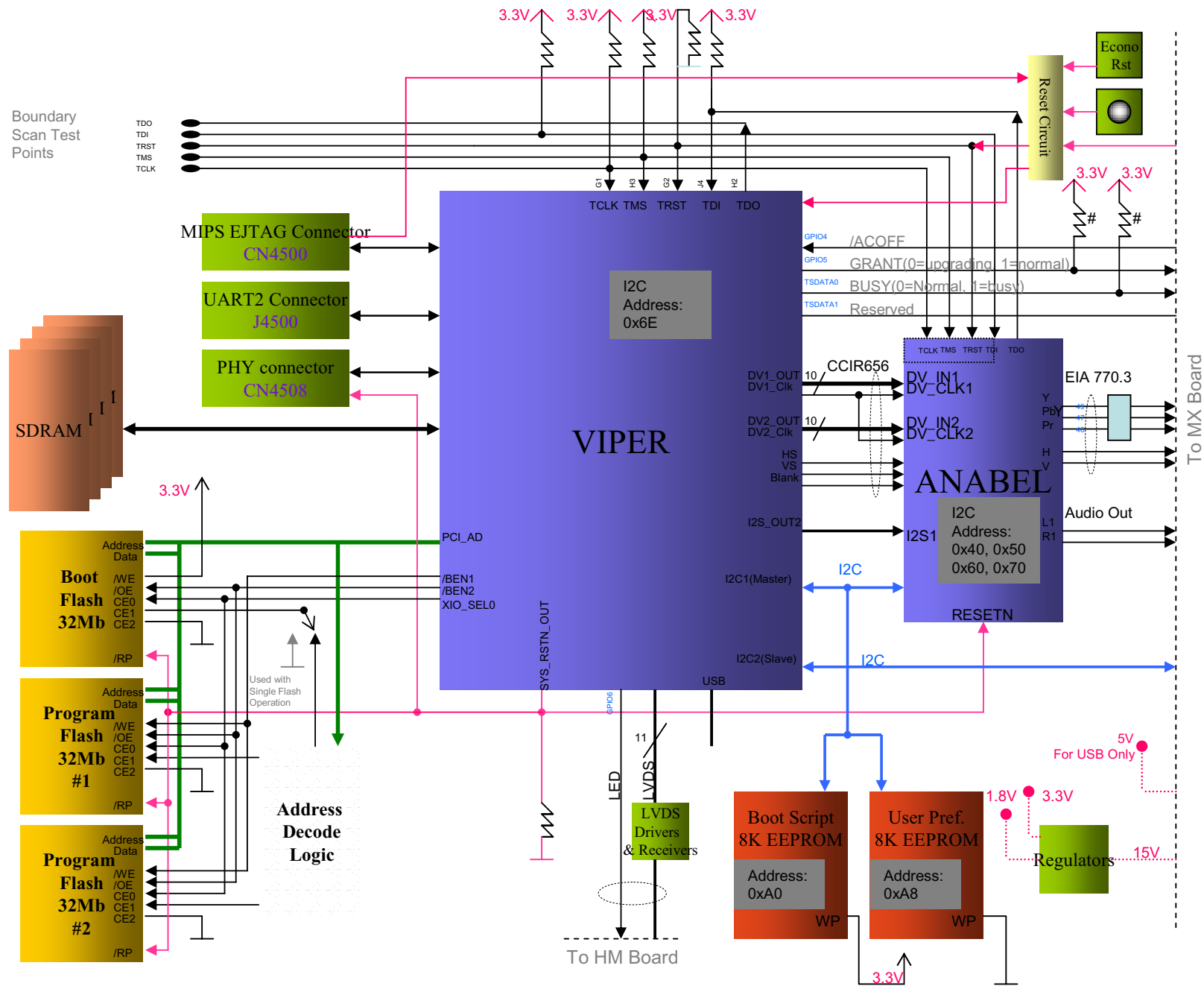


POWER SUPPLY LOAD MAP

Power Supply Load Map

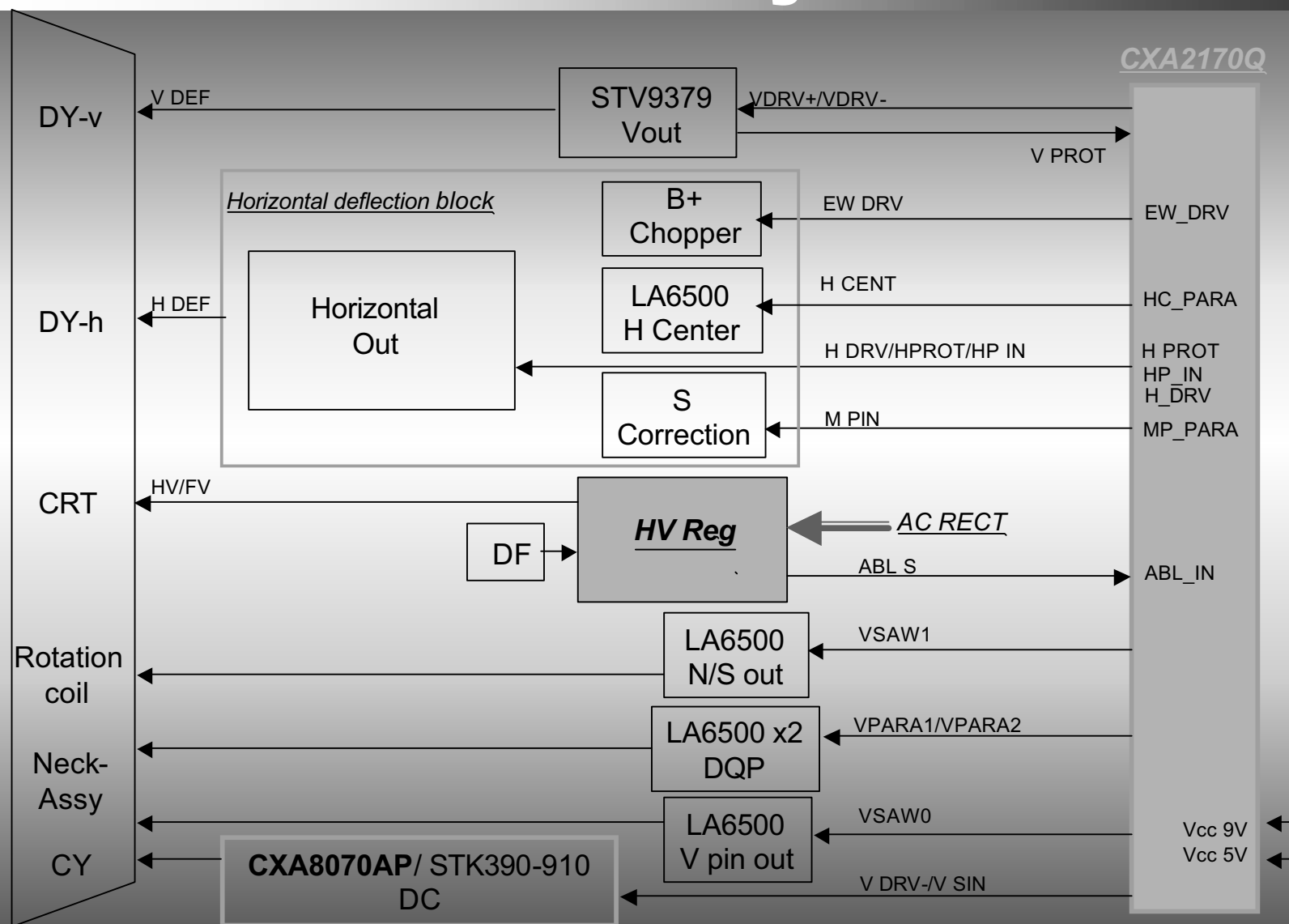


V BOARD BLOCK DIAGRAM



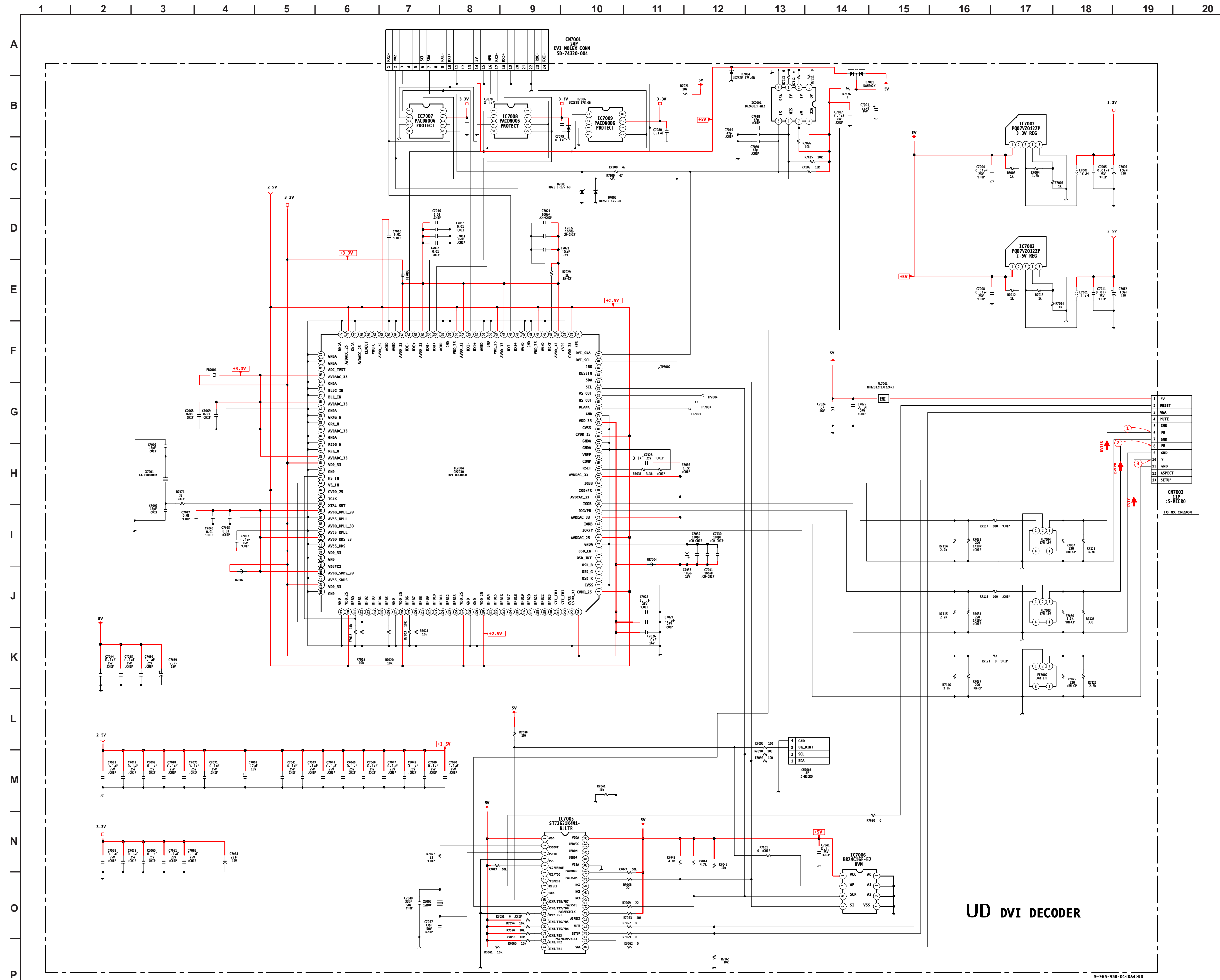
DEFLECTION & HV SYSTEM BLOCK DIAGRAM

Deflection & HV System Block

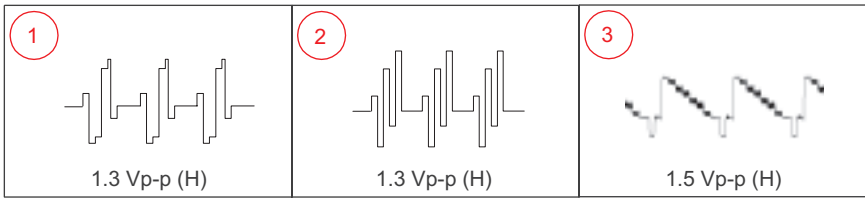


UD BOARD SCHEMATIC DIAGRAM

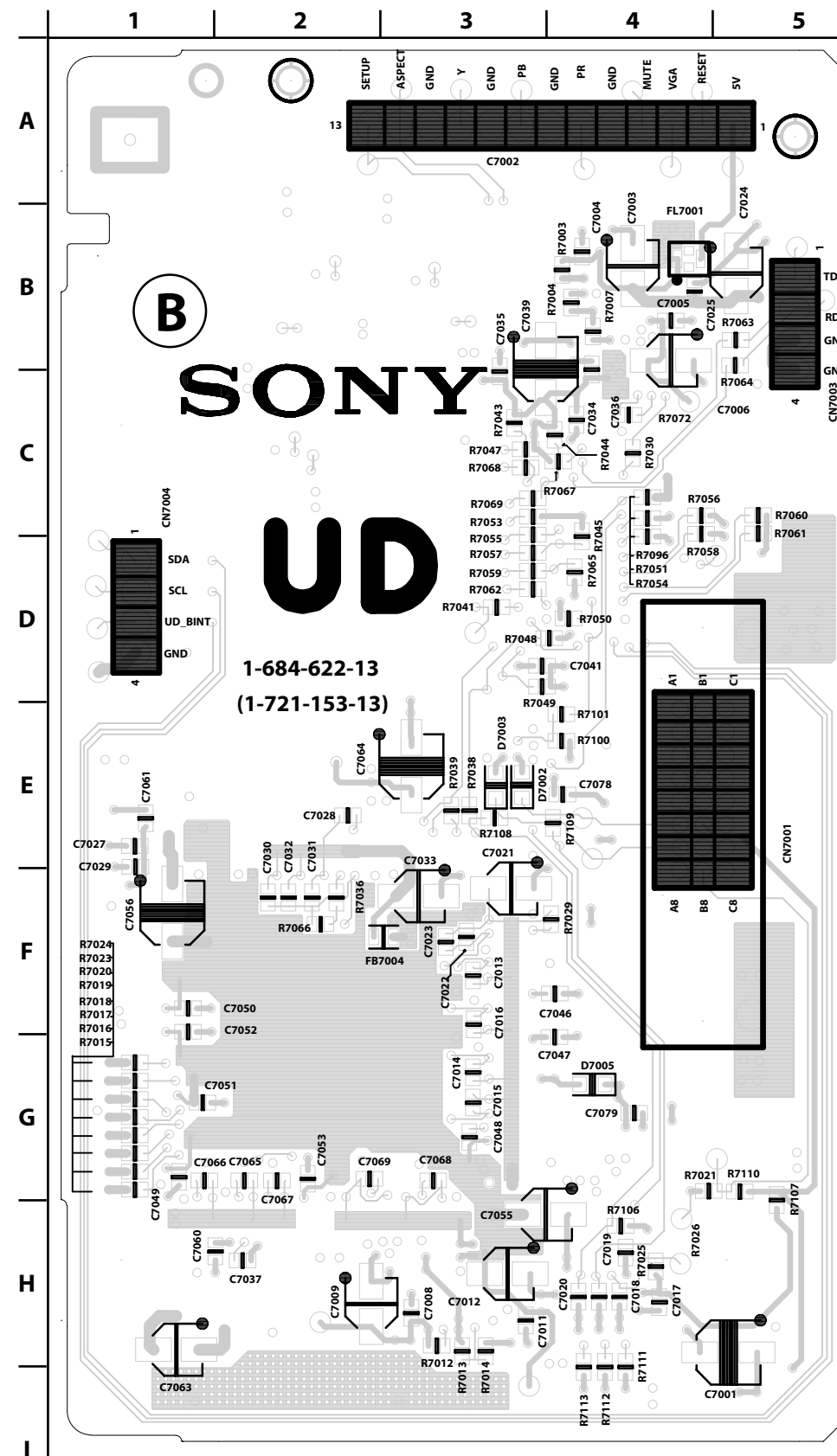
Due to the complexity of this board, performing component level field repairs is not recommended. If service is required, complete board replacement is the preferred repair method. Data is provided for reference only.

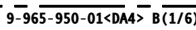


UD BOARD WAVEFORMS

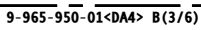


UD DVI DECODER



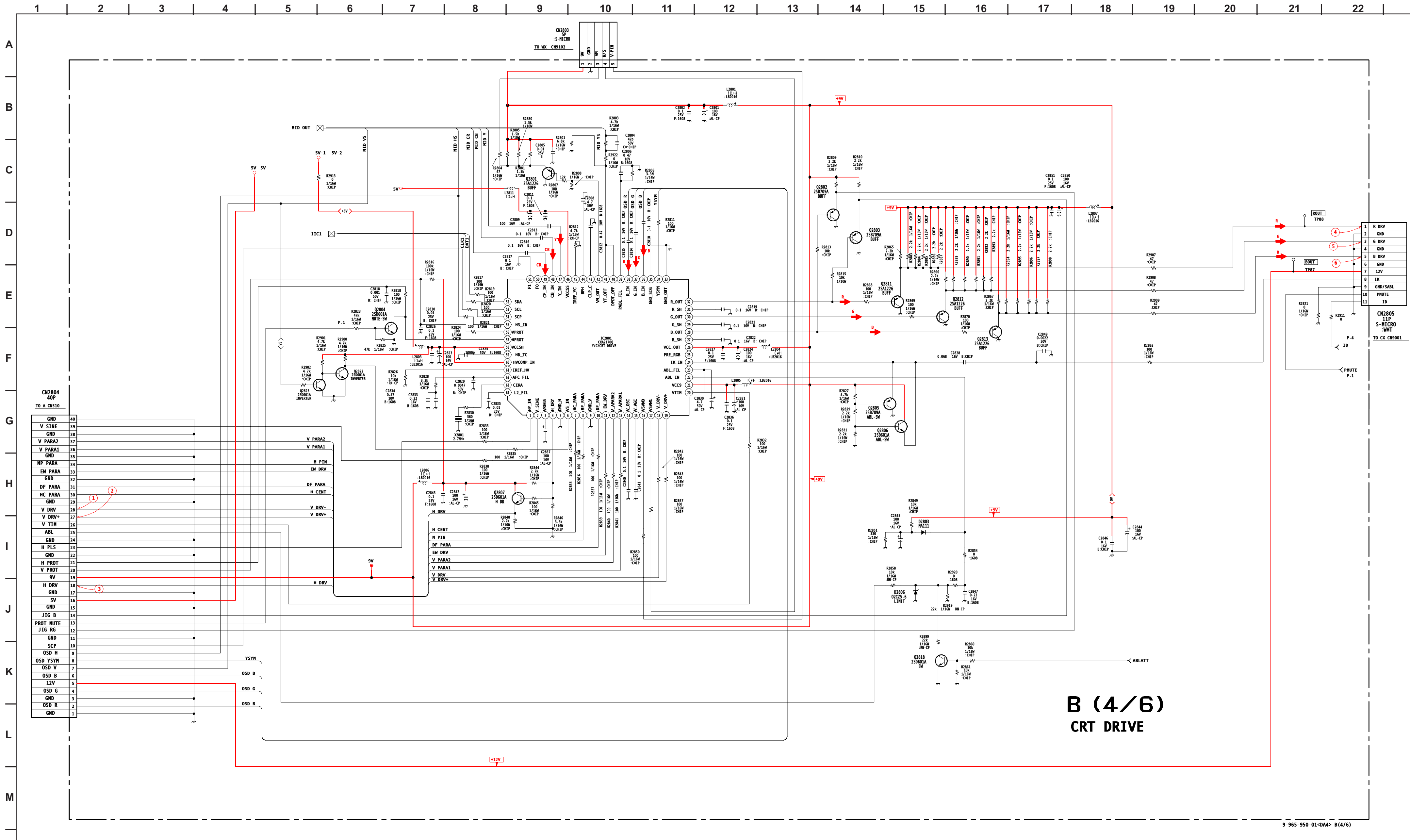


Due to the complexity of this board, performing component level field repairs is not recommended. If service is required, complete board replacement is the preferred repair method. Data is provided for reference only.

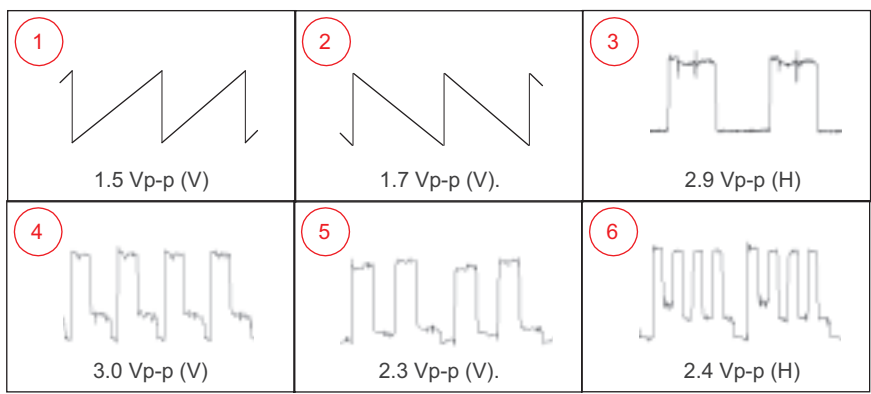


B BOARD SCHEMATIC DIAGRAM (4 OF 6)

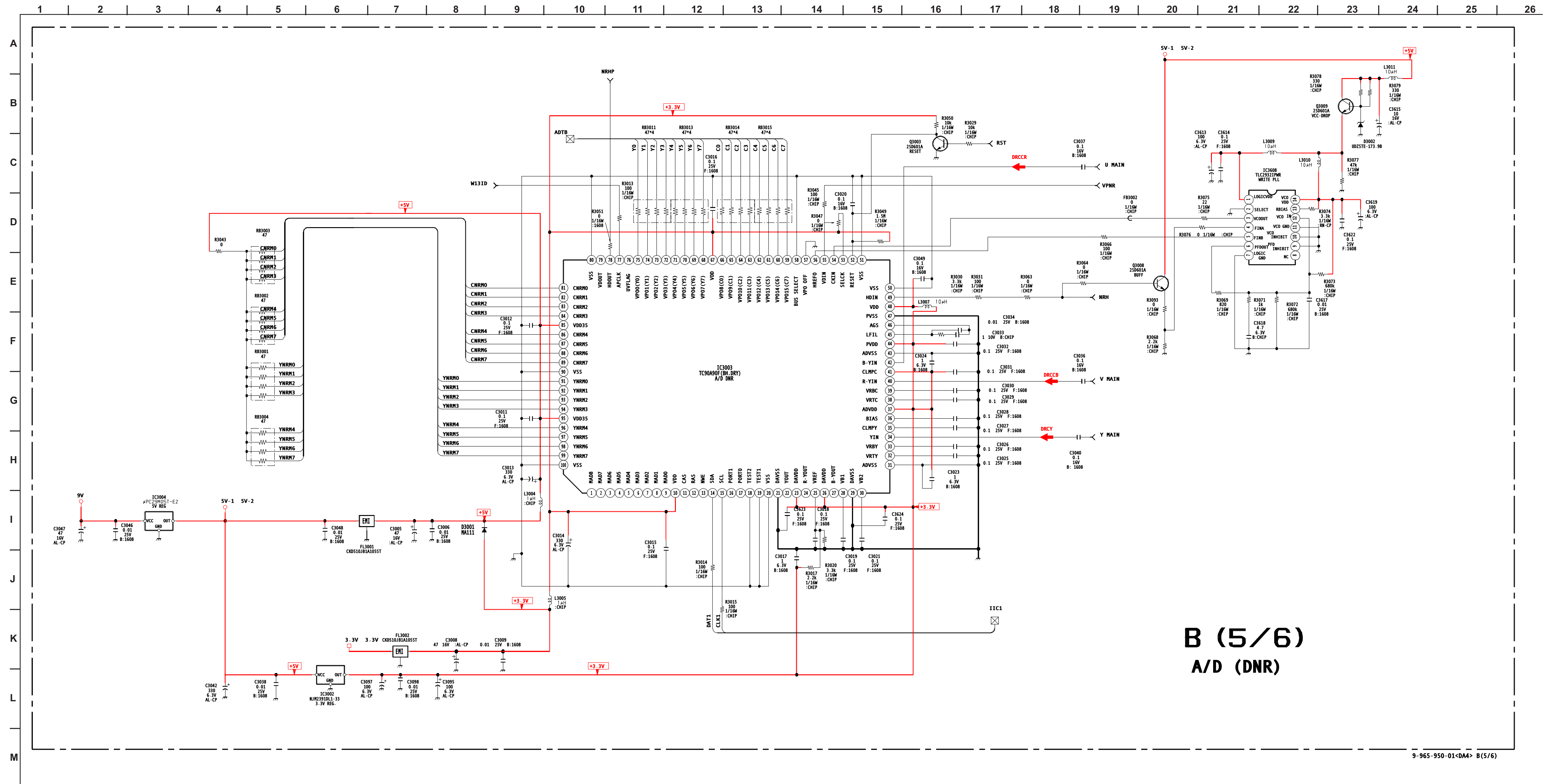
Due to the complexity of this board, performing component level field repairs is not recommended. If service is required, complete board replacement is the preferred repair method.
Data is provided for reference only.



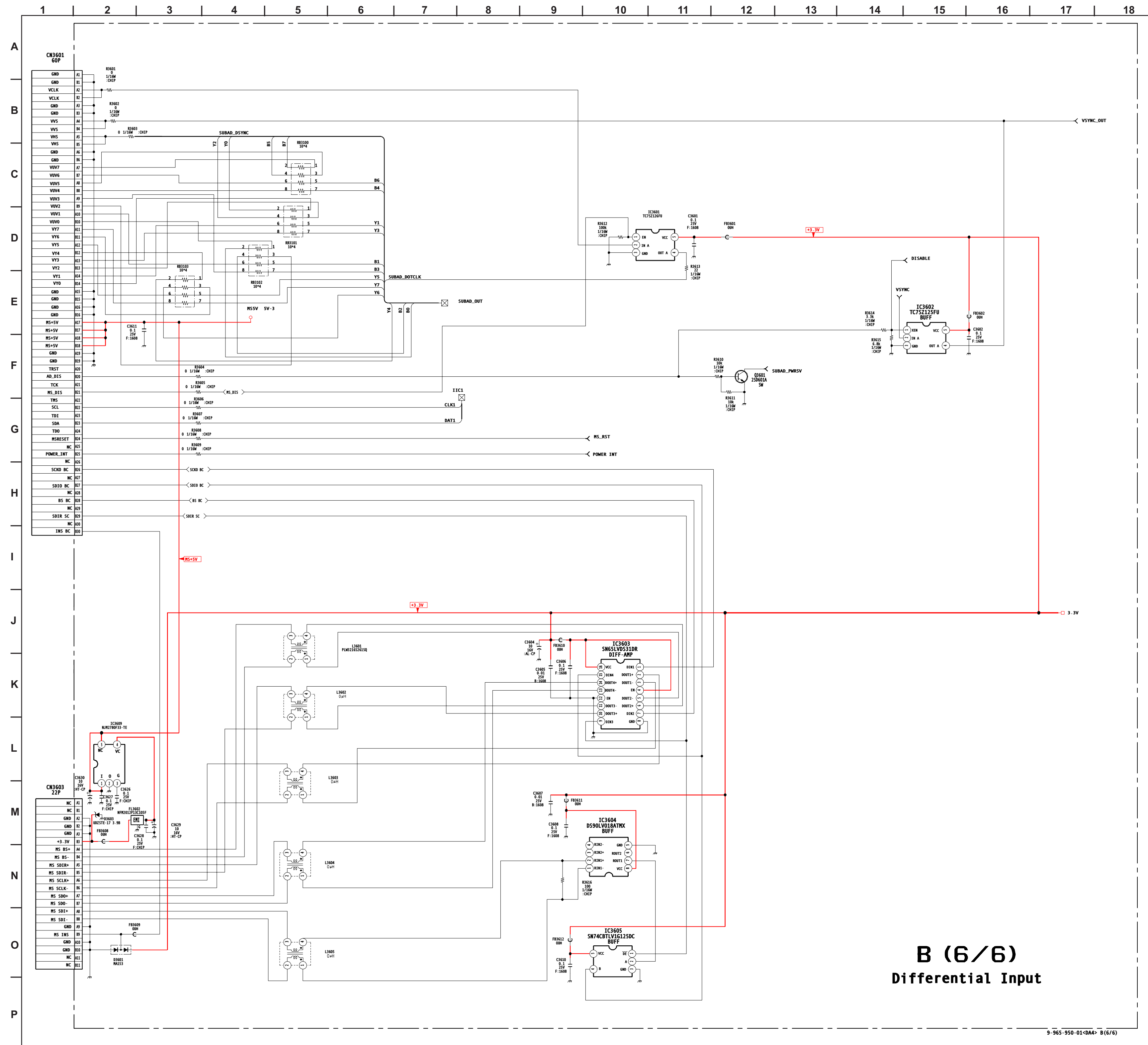
B BOARD WAVEFORMS



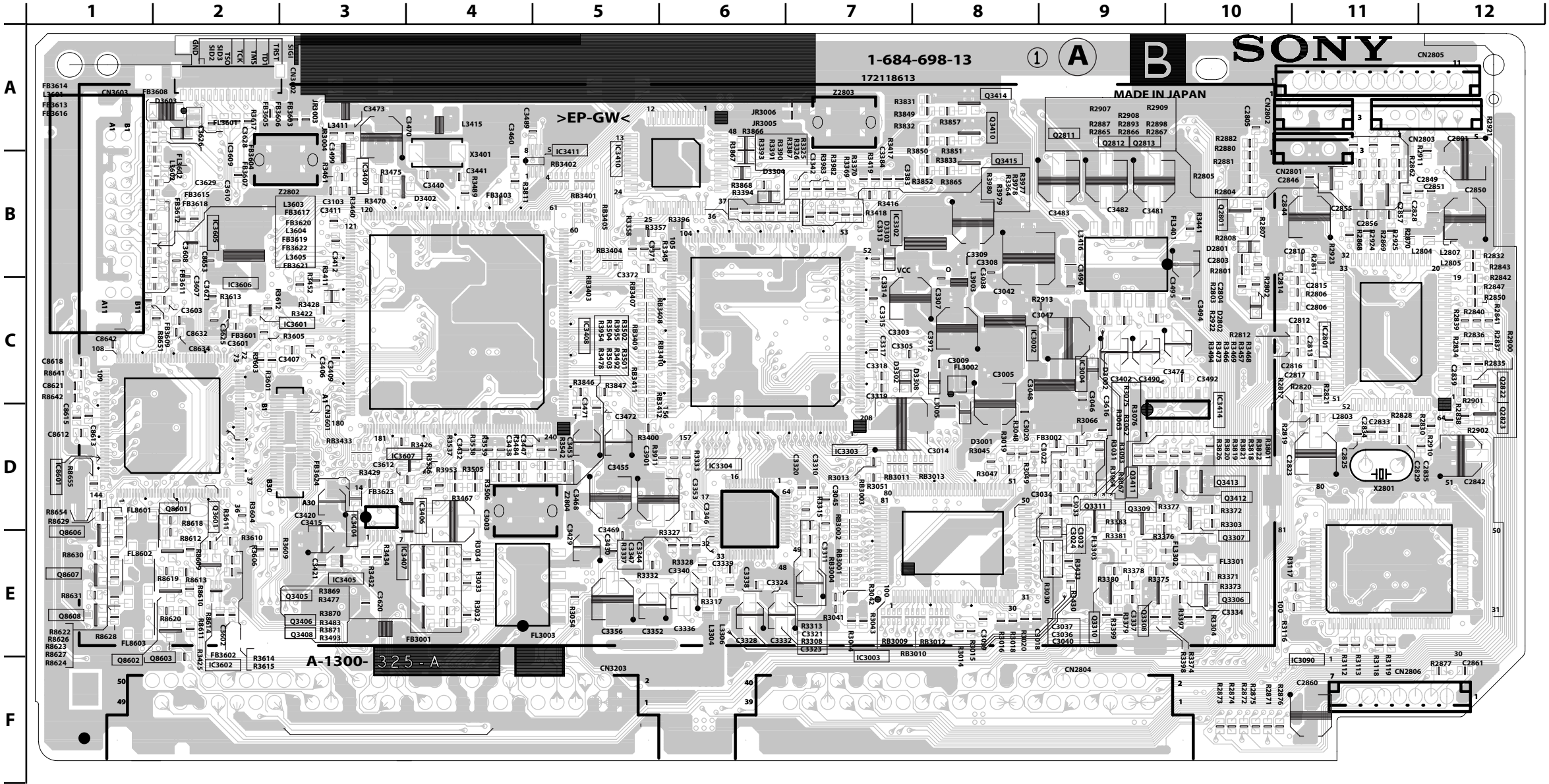
Due to the complexity of this board, performing component level field repairs is not recommended. If service is required, complete board replacement is the preferred repair method. Data is provided for reference only.



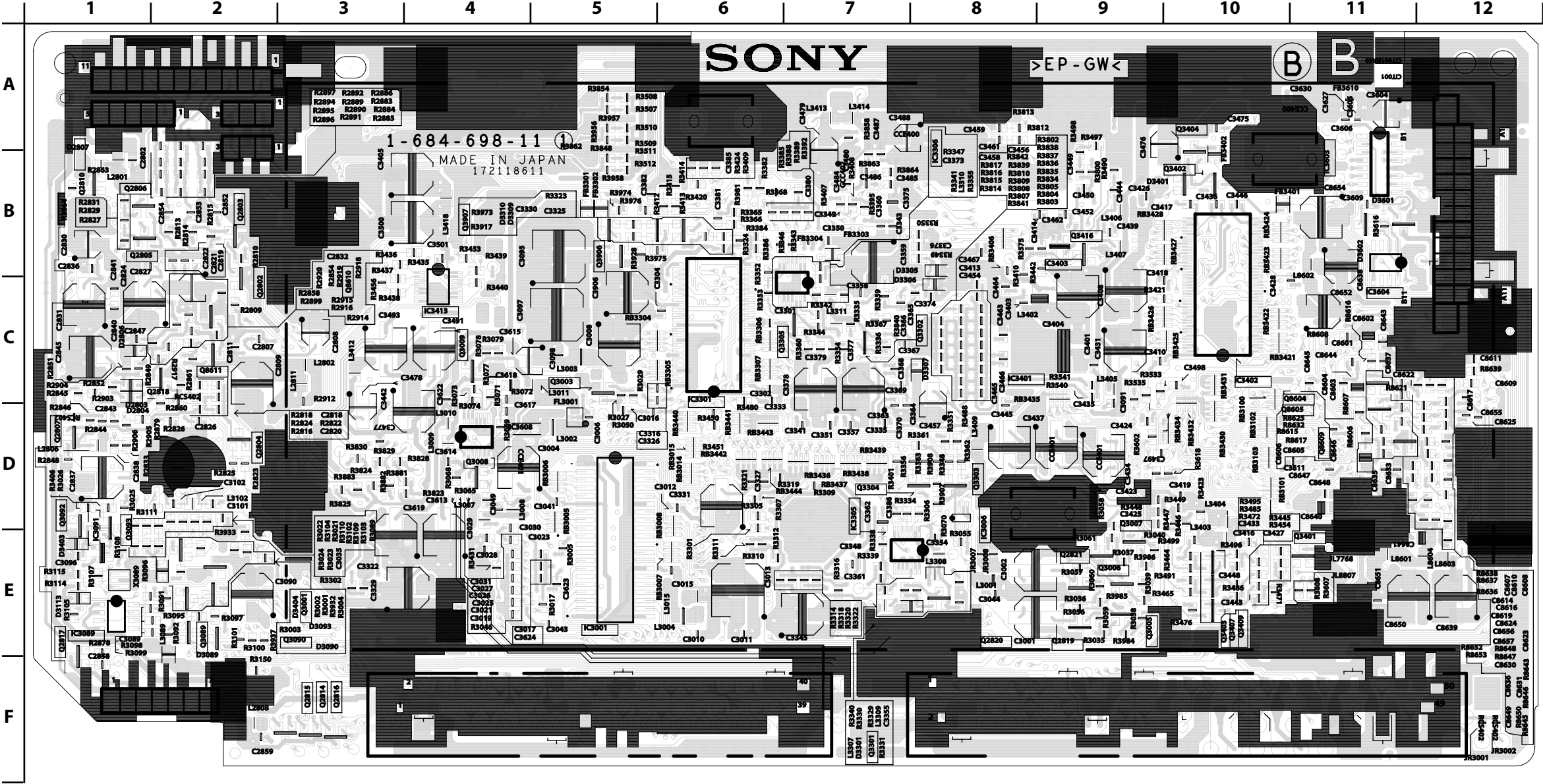
Due to the complexity of this board, performing component level field repairs is not recommended. If service is required, complete board replacement is the preferred repair method. Data is provided for reference only.



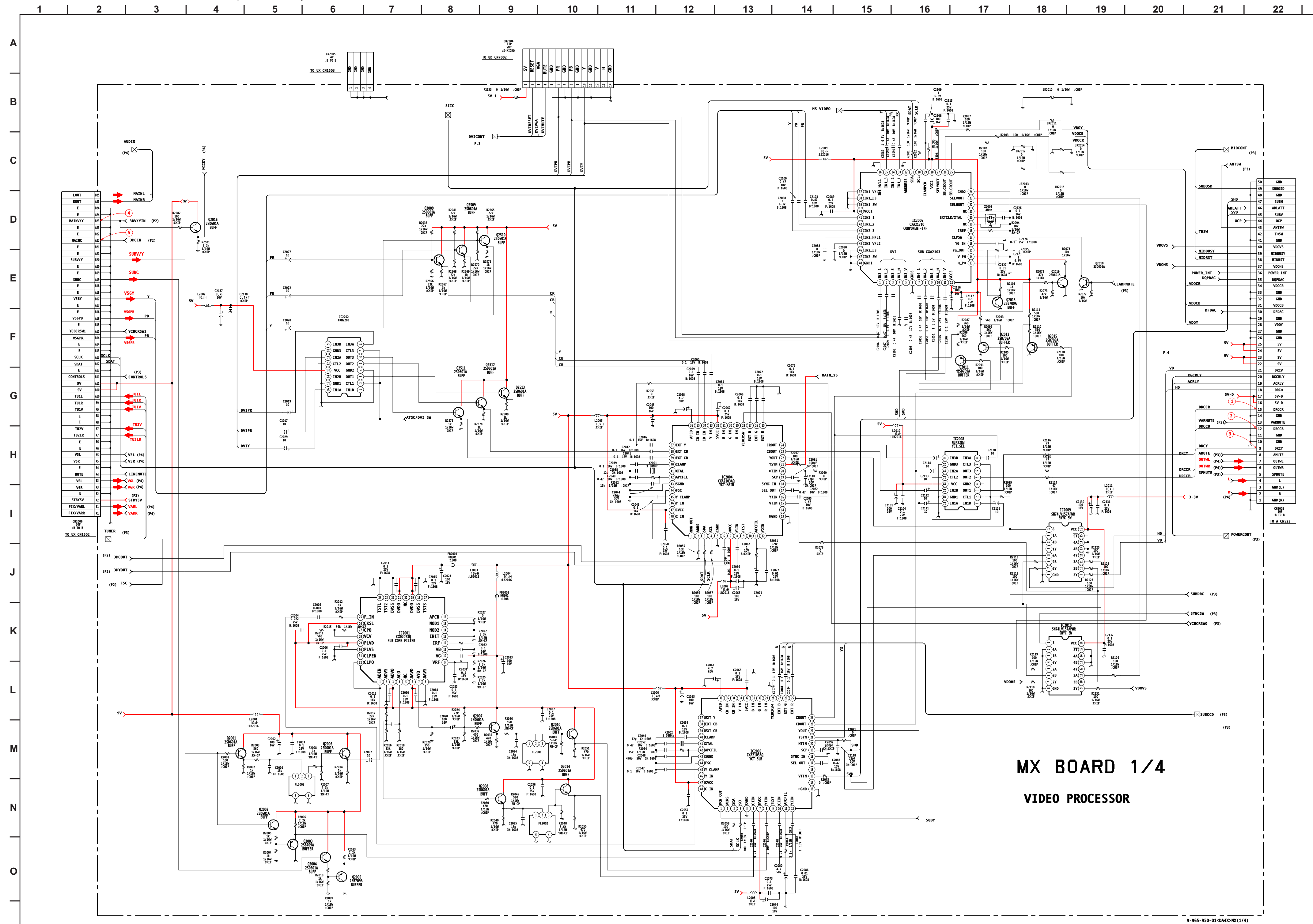
B [AD-DRC, MID-XA, AD, CRT DRIVE, A/D (DNR), DIFFERENTIAL INPUT]
COMPONENT SIDE



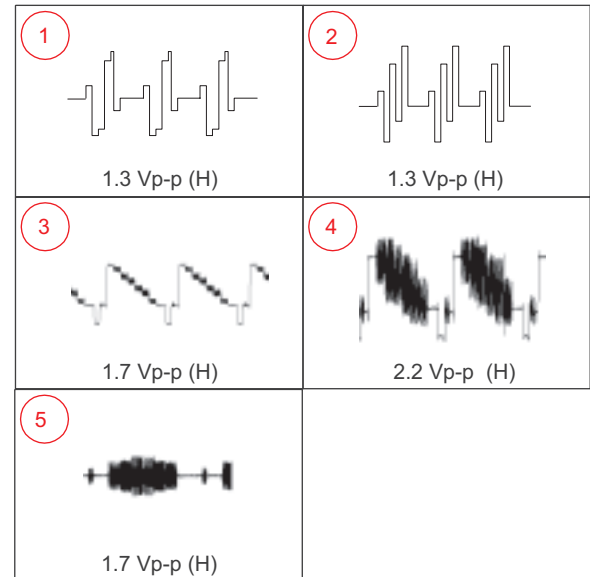
B [AD-DRC, MID-XA, AD, CRT DRIVE, A/D (DNR), DIFFERENTIAL INPUT]
CONDUCTOR SIDE



Due to the complexity of this board, performing component level field repairs is not recommended. If service is required, complete board replacement is the preferred repair method. Data is provided for reference only.

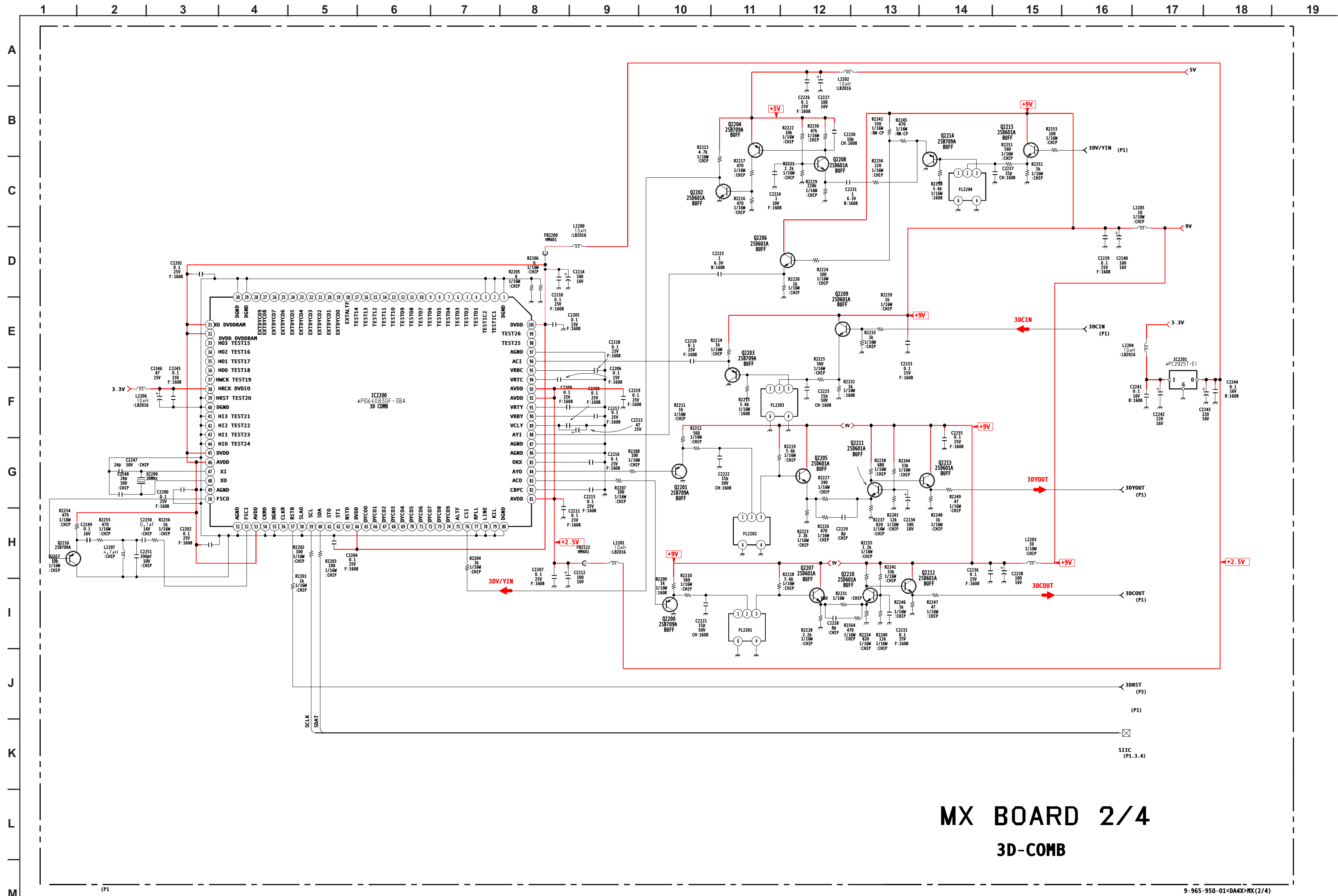


MX BOARD WAVEFORMS



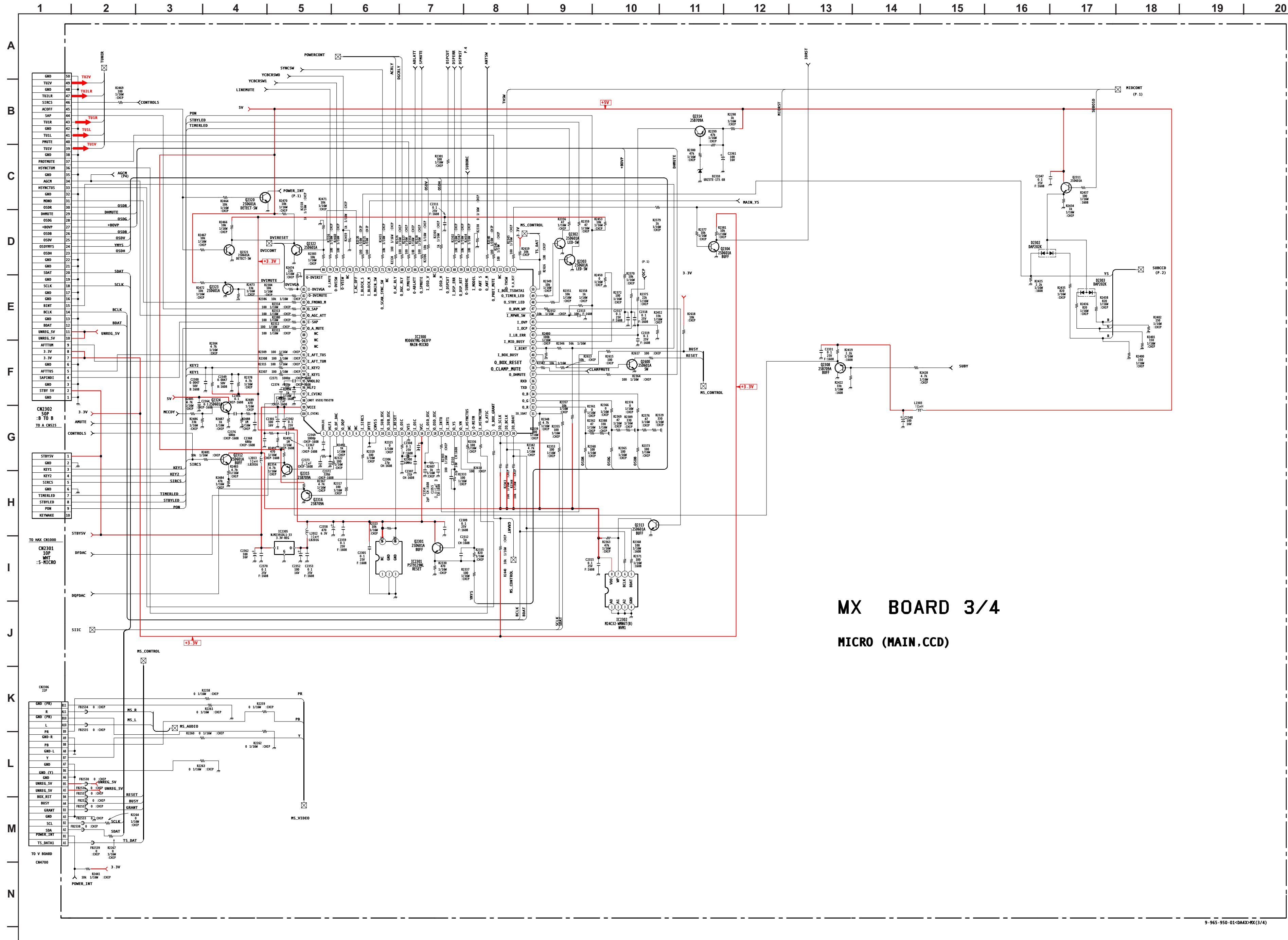
MX BOARD SCHEMATIC DIAGRAM (2 OF 4)

Due to the complexity of this board, performing component level field repairs is not recommended. If service is required, complete board replacement is the preferred repair method.
Data is provided for reference only.



MX BOARD SCHEMATIC DIAGRAM (3 OF 4)

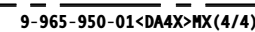
Due to the complexity of this board, performing component level field repairs is not recommended. If service is required, complete board replacement is the preferred repair method.
Data is provided for reference only.



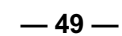
MX BOARD 3/4
MICRO (MAIN.CCD)

MX BOARD 4/4

AUDIO PROCESSOR



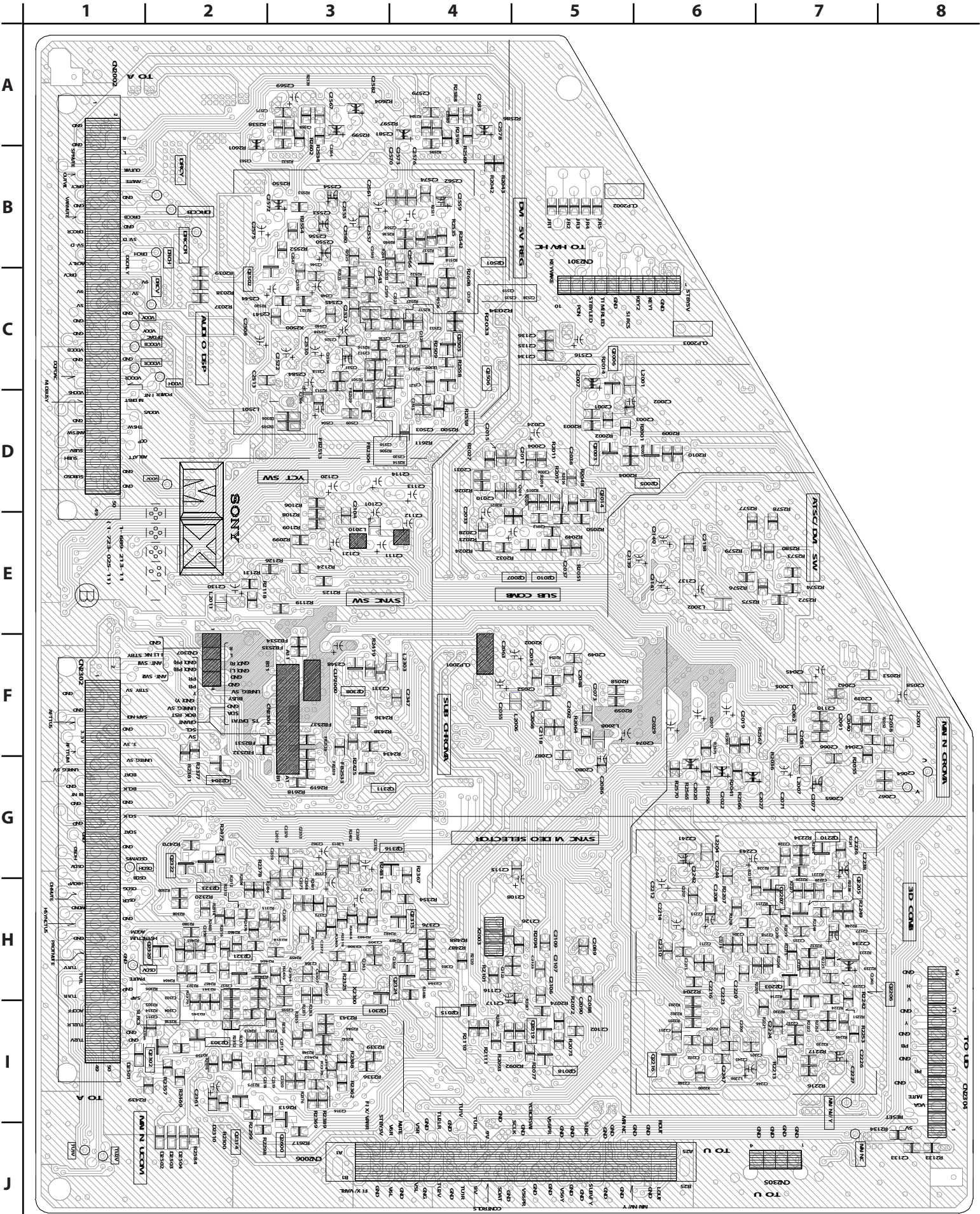
COMPONENT SIDE



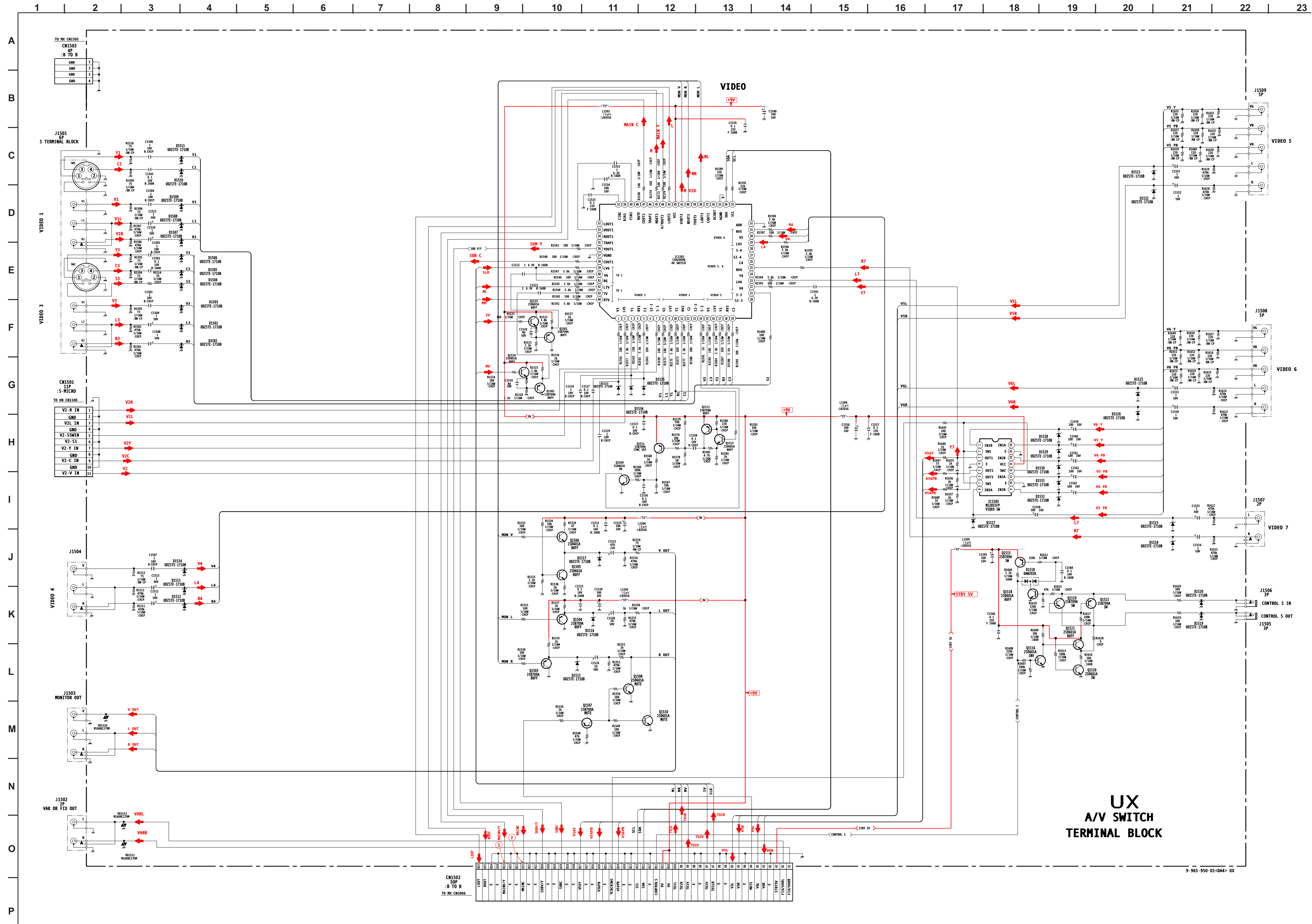


[VIDEO PROCESSOR, 3D-COMB, MICRO (MAIN, CCD), AUDIO PROCESSOR]

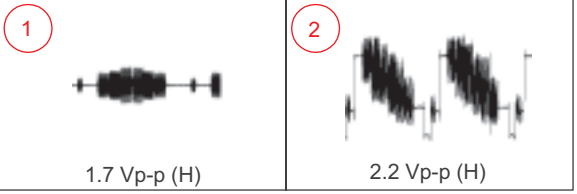
CONDUCTOR SIDE



UX BOARD SCHEMATIC DIAGRAM



UX BOARD WAVEFORMS



UX BOARD IC VOLTAGE LIST

IC1502				IC1505			
PIN	VOLT			PIN	VOLT		
1	3.9	23	4.5	44	4.3	1	4.7
2	4.5	24	N/C	46	N/C	2	0.0
3	3.9	25	4.5	47	4.4	3	3.2
4	4.5	26	N/C	48	N/C	4	GND
5	4.5	27	N/C	49	4.9	5	3.2
6	N/C	28	N/C	50	4.5	6	3.2
7	4.9	29	4.5	51	4.5	7	0.0
8	4.3	30	3.9	52	N/C	8	4.6
9	4.5	31	4.5	53	4.4	9	4.6
10	3.9	32	GND	54	N/C	10	GND
11	4.5	33	4.6	55	N/C	11	4.7
12	4.5	34	4.6	56	4.1	12	0.0
13	N/C	35	GND	57	GND	13	9.0
14	4.9	36	N/C	58	4.4	14	4.7
15	3.9	37	N/C	59	4.5	15	GND
16	4.5	38	4.5	60	5.0	16	4.7
17	3.9	39	N/C	61	4.5		
18	4.5	40	4.5	62	4.5		
19	4.5	41	4.4	63	4.9		
20	N/C	42	9.0	64	4.5		

All voltages are in V.

UX BOARD TRANSISTOR VOLTAGE LIST

	B	C	E
Q1501	2.0	GND	2.7
Q1502	3.3	GND	4.0
Q1503	4.5	GND	5.2
Q1504	4.5	GND	5.2
Q1505	1.6	3.7	0.9
Q1506	4.4	8.3	3.8
Q1507	0.0	0.0	0.0
Q1508	0.0	0.0	GND
Q1509	0.0	4.9	GND
Q1510	0.0	0.0	GND
Q1511	8.5	0.0	9.0
Q1512	8.4	5.3	9.0
Q1513	3.8	8.4	3.2
Q1515	4.9	4.2	5.0
Q1516	0.6	0.1	GND
Q1518	0.0	4.9	GND
Q1519	5.0	0.0	0.0
Q1520	0.6	0.0	GND
Q1521	0.1	5.0	0.0
Q1522	5.0	0.0	0.0
Q1523	4.5	9.0	3.9
Q1524	6.5	9.0	3.9

All voltages are in V.

UX
A/V SWITCH
TERMINAL BLOCK

9-965-950-01-04M4- UX



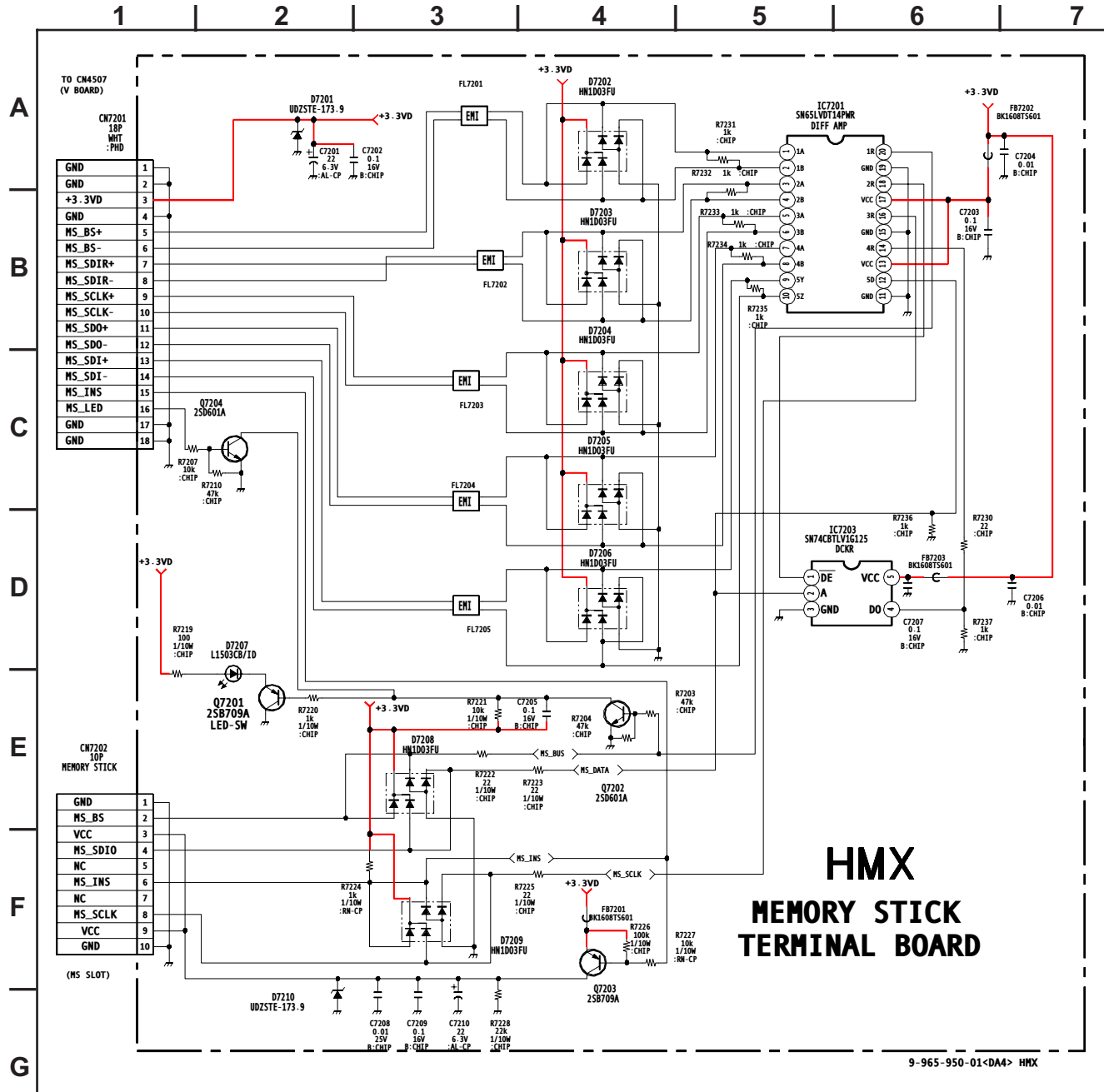
DIODE		TRANSISTOR	
D1518	E-5	Q1501	A-1
IC		Q1502	A-1
IC1501	B-2	Q1503	A-2
IC1502	B-2	Q1508	C-3
		Q1510	C-3
		Q1515	F-4
		Q1516	F-4
		Q1518	E-5
		Q1520	F-5
		Q1521	F-4
		Q1523	A-2
		Q1524	A-1



DIODE		DIODE		DIODE		DIODE		TRANSISTOR	
D1501	E-2	D1510	E-5	D1520	B-1	D1529	C-4	Q1504	C-5
D1502	E-1	D1511	E-5	D1521	B-2	D1530	B-5	Q1505	C-4
D1503	E-3	D1512	C-2	D1522	B-2	D1531	C-4	Q1506	C-4
D1504	E-3	D1513	D-1	D1523	C-5	D1532	B-5	Q1507	D-4
D1505	D-4	D1514	D-3	D1524	D-5	D1533	E-5	Q1509	D-5
D1506	D-4	D1515	D-4	D1525	A-1	D1534	E-4	Q1511	D-5
D1507	E-1	D1516	D-4	D1526	A-1	D1535	E-5	Q1512	E-5
D1508	E-1	D1517	C-4	D1527	C-3			Q1513	E-5
D1509	E-3	D1519	A-1	D1528	B-5			Q1519	C-1
								Q1522	B-1

HMX BOARD SCHEMATIC DIAGRAM

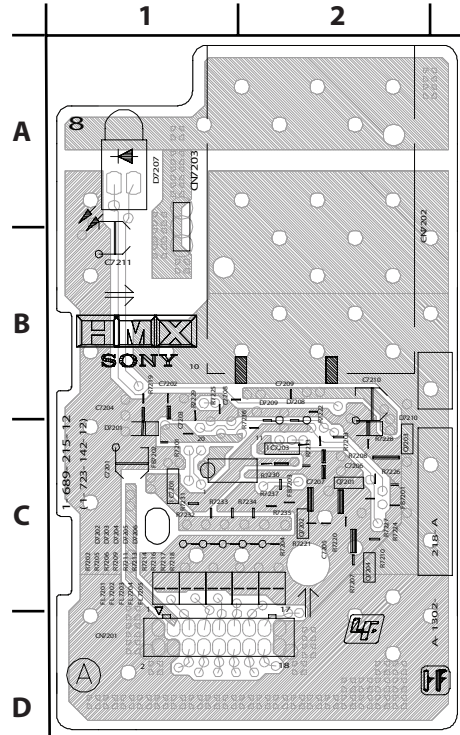
Due to the complexity of this board, performing component level field repairs is not recommended. If service is required, complete board replacement is the preferred repair method. Data is provided for reference only.





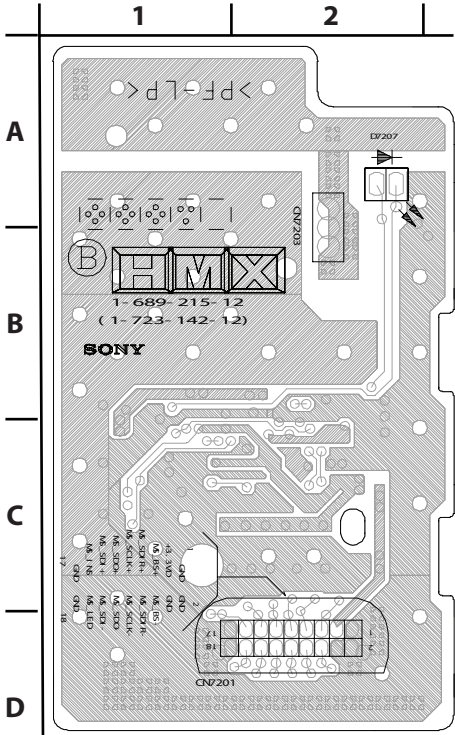
[MEMORY STICK, TERMINAL BOARD]

COMPONENT SIDE



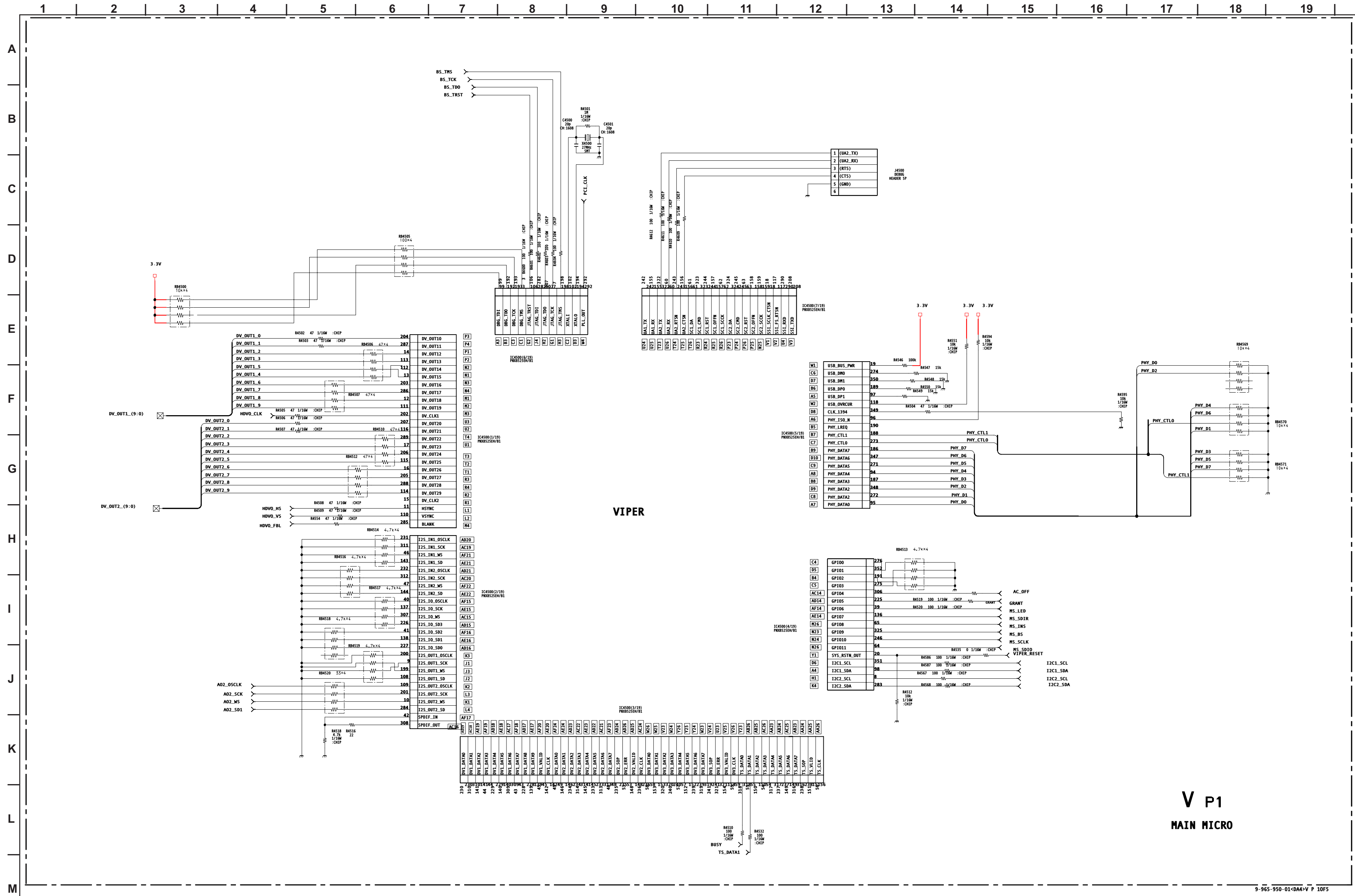
[MEMORY STICK, TERMINAL BOARD]

CONDUCTOR SIDE



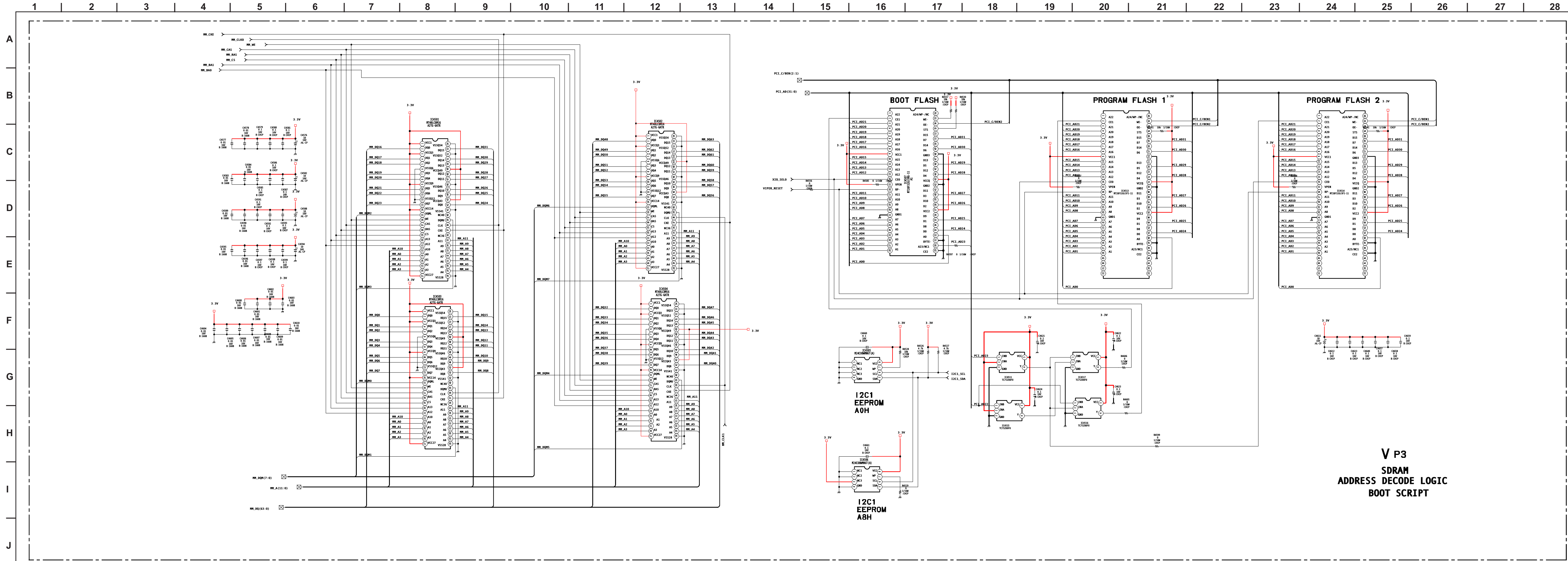
V BOARD SCHEMATIC DIAGRAM (1 OF 5)

Due to the complexity of this board, performing component level field repairs is not recommended. If service is required, complete board replacement is the preferred repair method.
Data is provided for reference only.



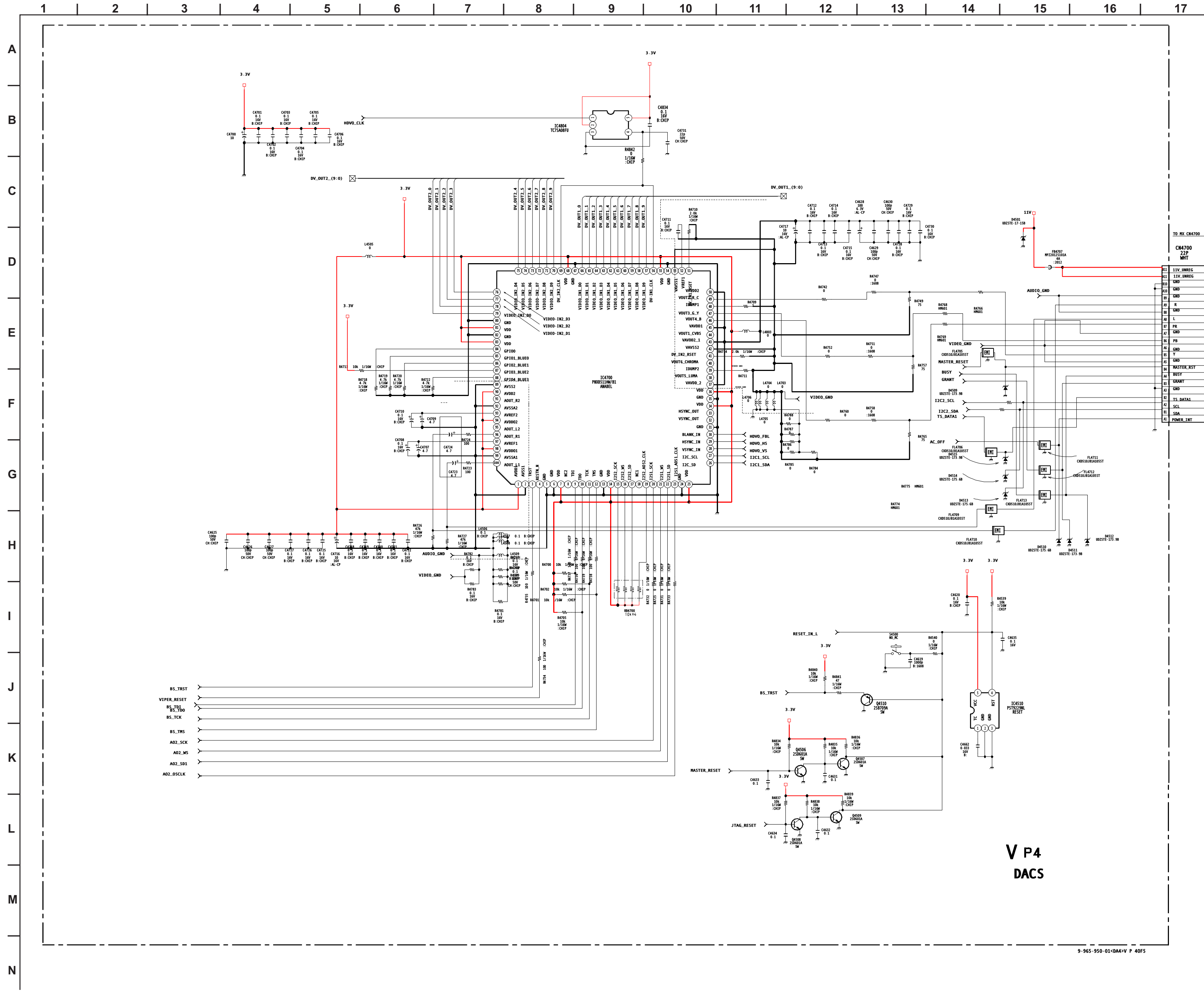
V BOARD SCHEMATIC DIAGRAM (3 OF 5)

Due to the complexity of this board, performing component level field repairs is not recommended. If service is required, complete board replacement is the preferred repair method.
Data is provided for reference only.



V BOARD SCHEMATIC DIAGRAM (4 OF 5)

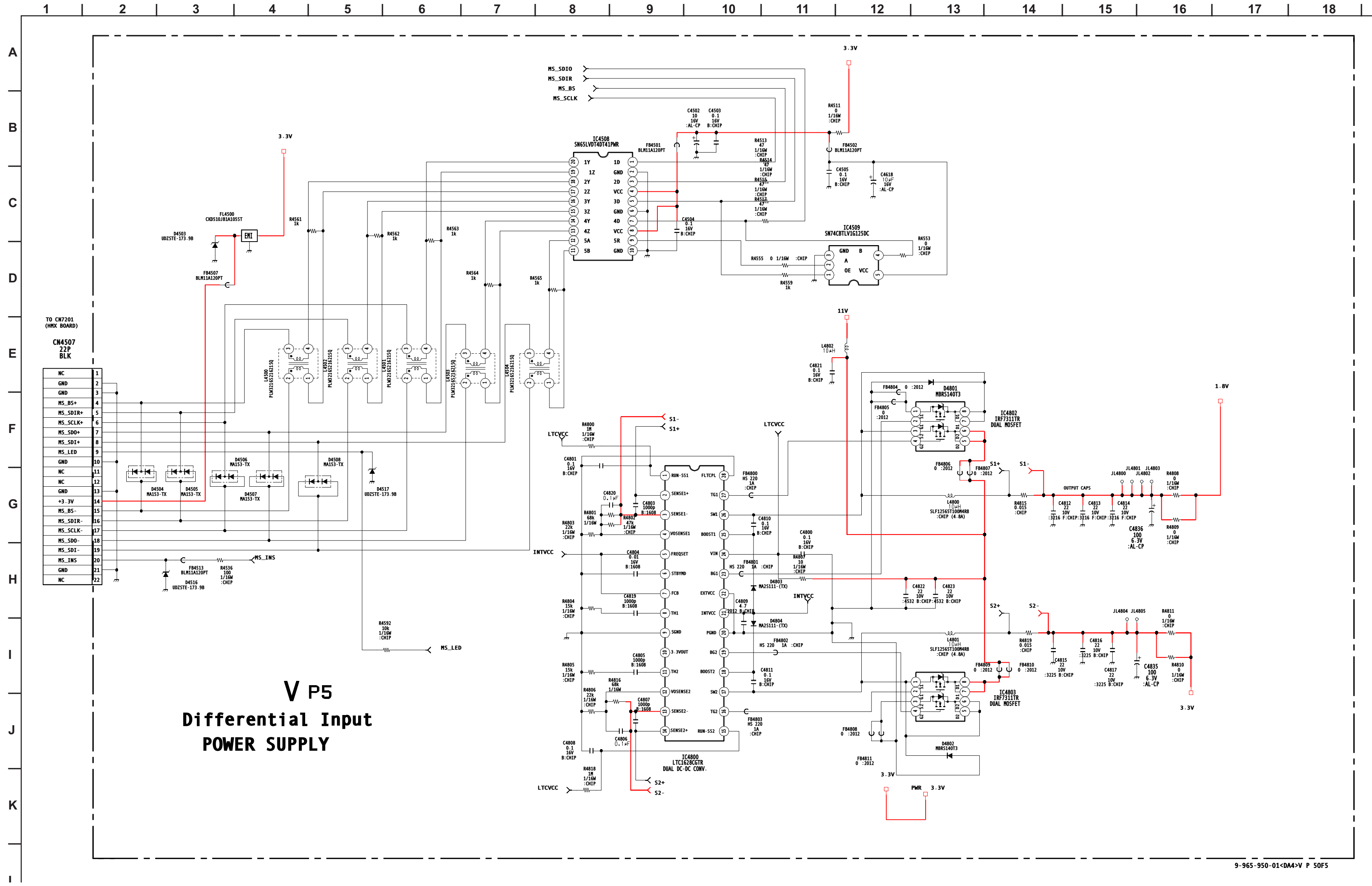
Due to the complexity of this board, performing component level field repairs is not recommended. If service is required, complete board replacement is the preferred repair method.
Data is provided for reference only.



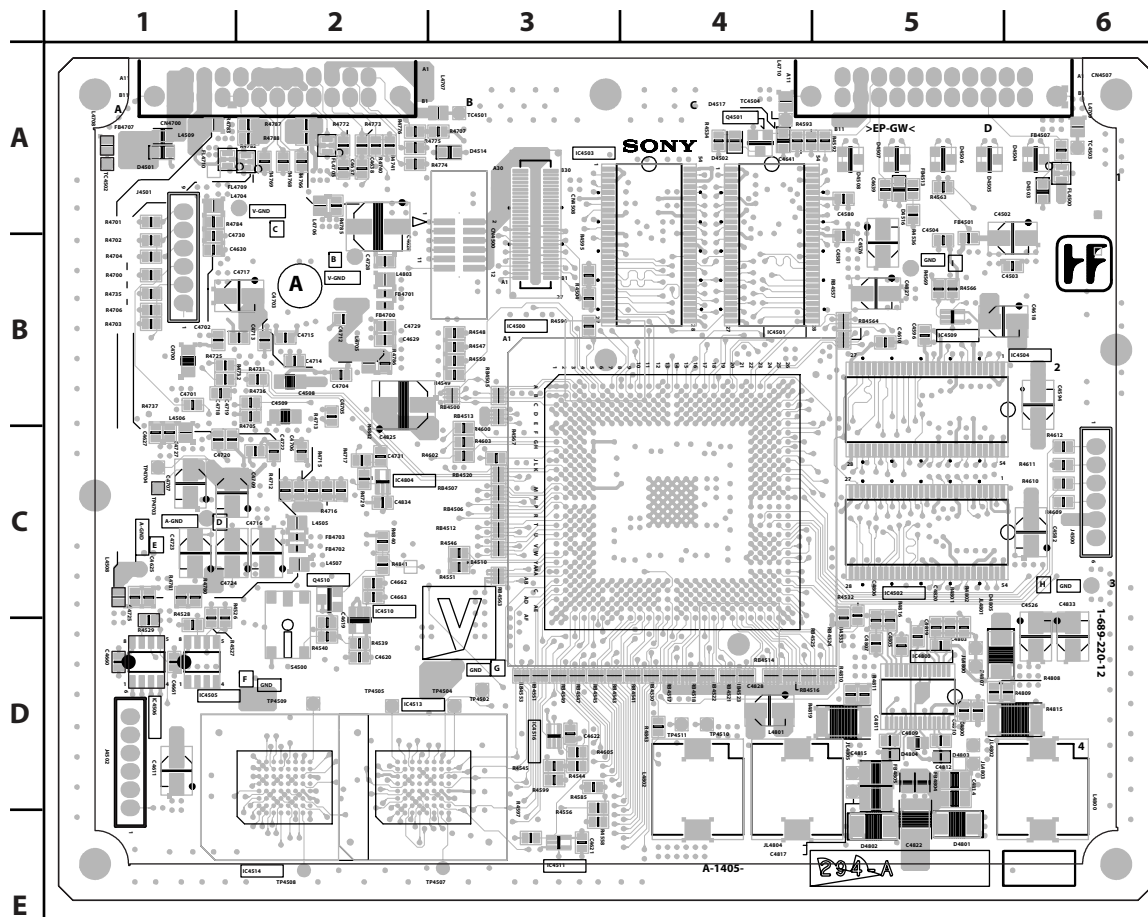
V P4
DACs

V BOARD SCHEMATIC DIAGRAM (5 OF 5)

Due to the complexity of this board, performing component level repairs is not recommended. If service is required, complete board replacement is the preferred repair method.
Data is provided for reference only.



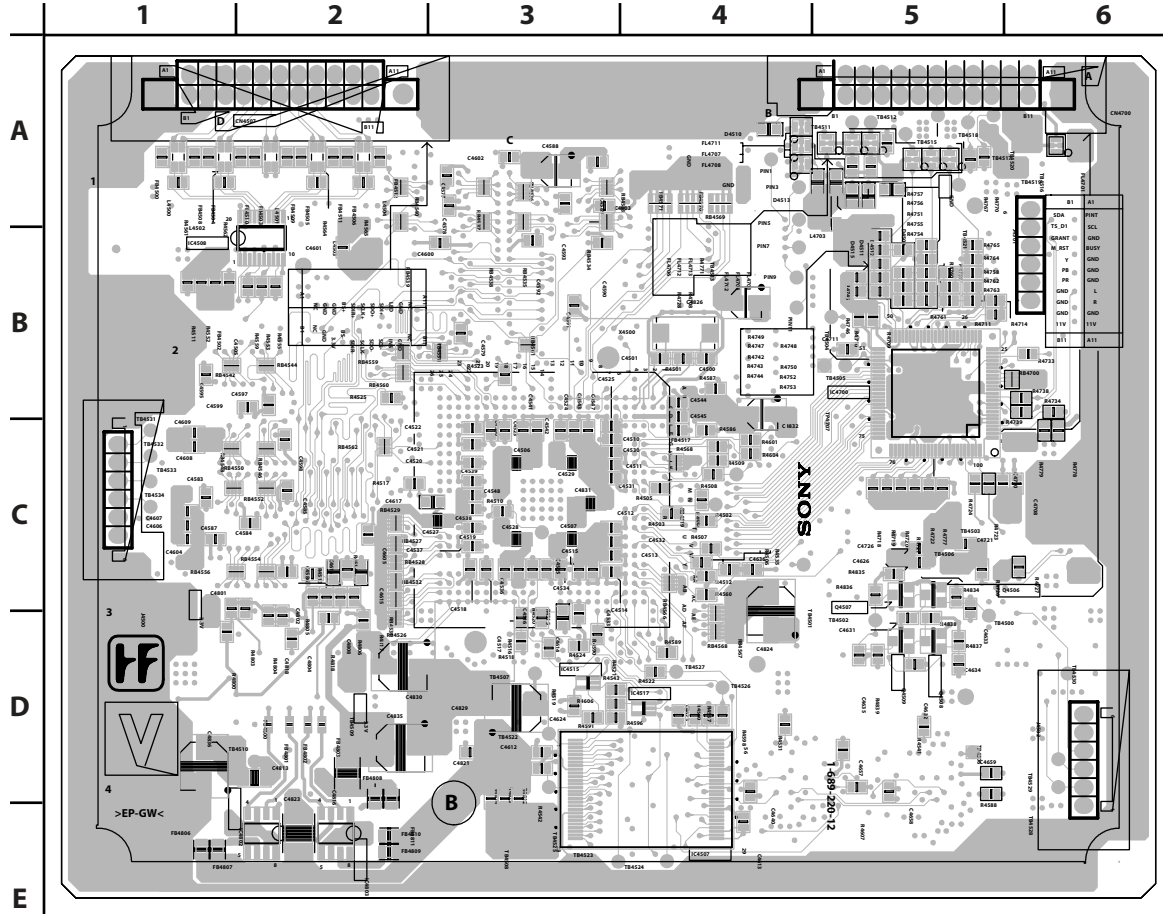
COMPONENT SIDE

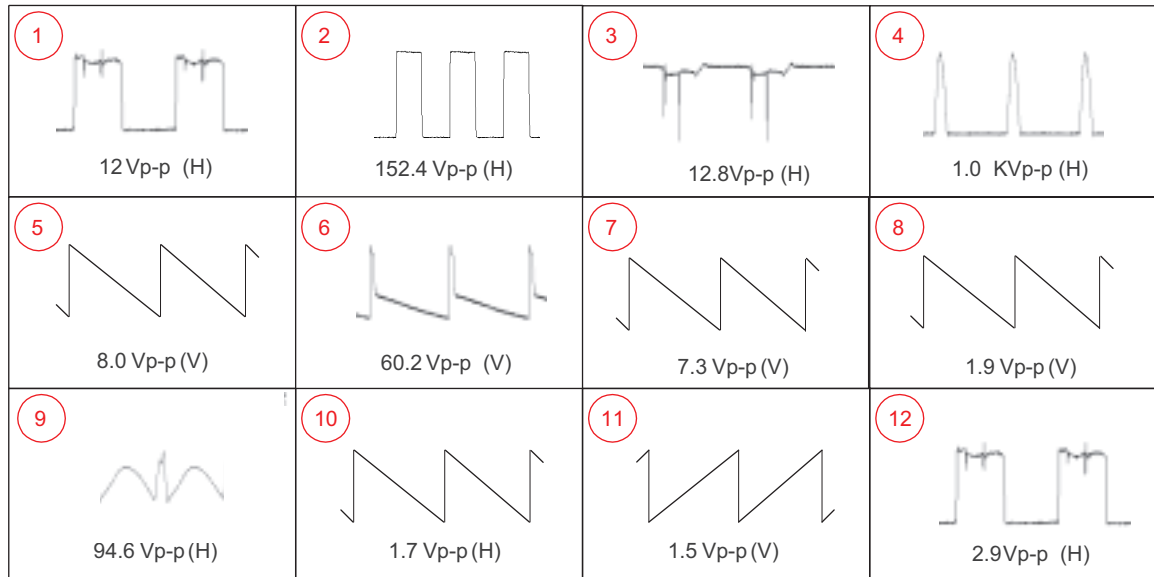




[MAIN MICRO, SDRAM, ADDRESS DECODE LOGIC, BOOT SCRIPT, DACS, DIFFERENTIAL INPUT, POWER SUPPLY]

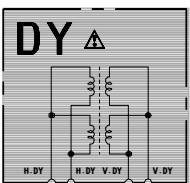
CONDUCTOR SIDE





D (1/2)

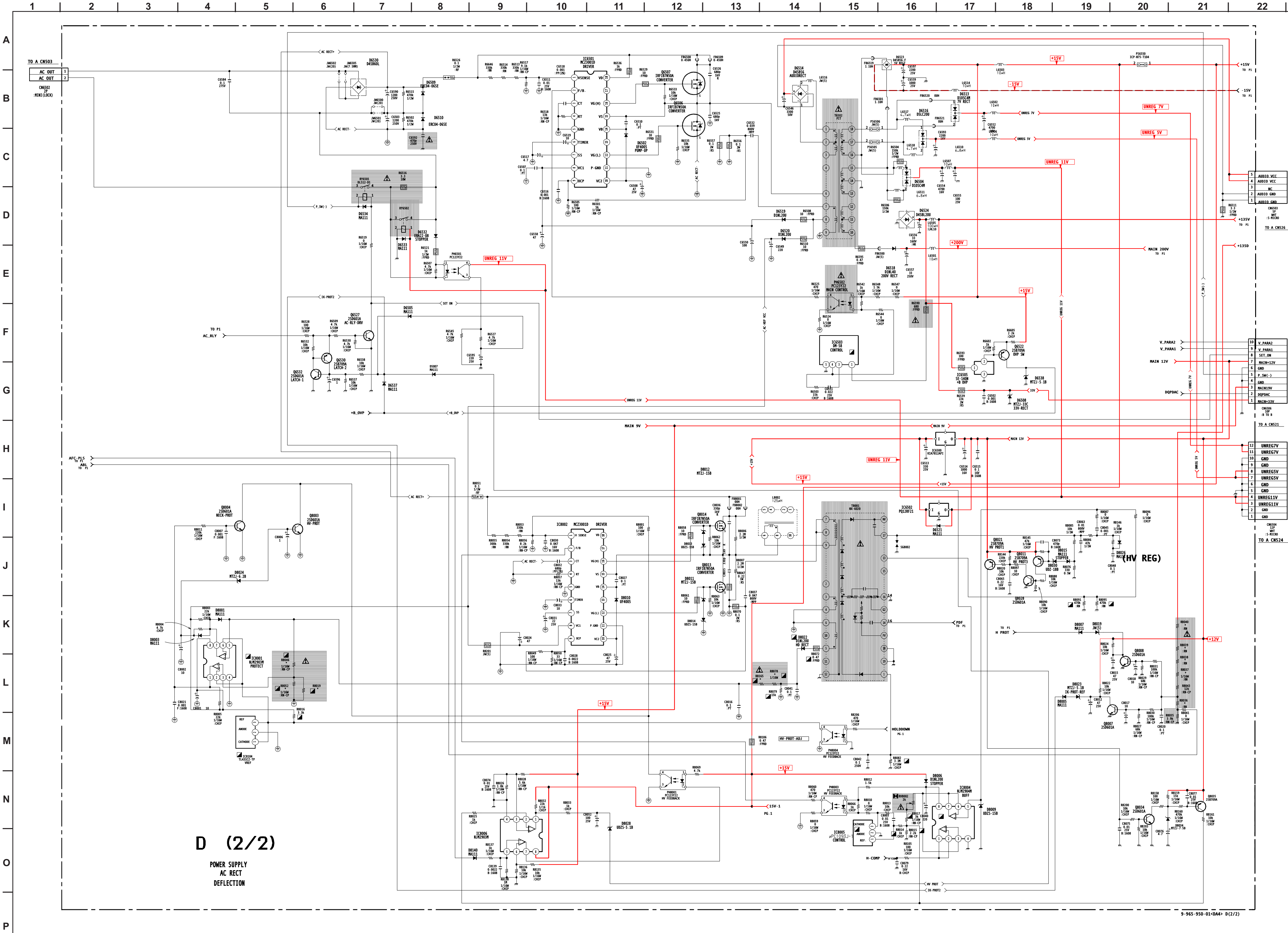
H/V DRIVE



CAUTION !

IC5004 HEAT SINK IS -15V CARE MUST BE TAKEN NOT TO
ALLOW HEAT SINK TO TOUCH ANY OTHER COMPONENTS

D BOARD SCHEMATIC DIAGRAM (2 OF 2)



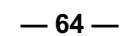
D BOARD IC VOLTAGE LIST

IC5001	IC5007	2	1.0	6	0.0	3	2.2
PIN	VOLT	PIN	VOLT	PIN	VOLT	PIN	VOLT
1	10.9	1	2.4	4	1.7	8	17.9
2	10.9	2	0.7	5	12.0	9	0.0
3	N/C	3	9.0			10	10.5
4	GND	4	1.6			11	GND
5	3.9	5	GND	1	4.0	12	4.8
6	3.9	6	3.9	2	5.8	13	N/C
7	4.7	7	2.7	3	5.8	14	151.8
8	12.0	8	0.4	4	GND	15	142.2
		9	3.0	5	2.6	16	146.3
		10	N/C	6	2.6	17	N/C
		11	N/C	7	7.6	18	306.1
		12	GND	8	12.0		
		13	N/C				
		14	0.7				
		15	5.1				
		16	6.9				
		17	4.8				
		18	12.0				
		19	0.5				
		20	12.0				
		21	3.9				
		22	1.2				
		23	1.2				
		24	1.2				
		25	1.2				
		26	1.2				
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		99	1.2				
		100	1.2				

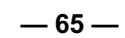
D BOARD TRANSISTOR VOLTAGE LIST

Q5001	B	C	E	Q5005	B	C	E	Q5009	B	C	E
Q5002	4.8	12	4.9	Q5006	0.4	9.0	0.0	Q5013	10.9	128.8	135.0
Q5004	4.8	GND	4.9	Q5007	0.0	2.7	GND	Q5014	63.9	3.8	GND
Q5006	133.3	3.7	132.7	Q5008	0.7	8.3	0.8	Q5015	14.6	2.1	GND
Q5008	0.0	14.1	0.2	Q5010	4.4	12.0	3.8	Q5016	10.5	6.9	GND
Q5010	11.2	12.0	10.7	Q5011	1.3	8.7	4.2	Q5017	140.1	4.8	GND
Q5012	11.4	12.1	12.0	Q5012	6.9	12.0	7.0	Q5018	305.6	145.1	140.1
Q5014	0.7	0.0	GND	Q5013	6.9	0.0	7.0	Q5019	136.0	4.5	GND
Q5016	0.0	0.0	GND	Q5014	15.4	0.0	15.4	Q5020	305.0	131.0	136.0
Q5018	0.1	0.8	GND	Q5015	0.8	0.1	GND				
Q5020	0.0	0.0	GND	Q5016	3.2	0.0	3.2				
Q5022	3.4	97.5	2.9	Q5017	0.0	3.2	GND				
Q5024	2.8	GND	3.4	Q5018	0.1	2.6	GND				
Q5026	8.9	0.0	9.0	Q5019	0.1	2.6	GND				
Q5028	2.1	105.0	1.5	Q5020	0.6	0.1	GND				
Q5030	0.7	0.0	GND	Q5021	0.6	0.1	GND				
Q5032	2.2	9.0	2.1	Q5022	11.9	0.0	12.0				
Q5034	2.2	GND	2.1	Q5023	0.6	0.0	GND				
Q5036	0.9	9.0	1.3	Q5024	132.6	132.4	133.3				
Q5038	0.6	GND	1.2	Q5025	0.0	86.6	GND				
Q5040	0.2	3.9	GND	Q5026	0.6	0.0	GND				
Q5042	2.4	9.0	2.2	Q5027	0.0	0.6	GND				
Q5044	0.9	-15.0	1.3	Q5028	11.7	0.0	12.0				
Q5046	3.8	9.0	3.8	Q5029	3.4	GND	3.5				
Q5048	3.8	0.0	3.8	Q5030	3.4	9.0	3.5				
Q5050	0.0	84.3	GND	Q5031	0.0	11.7	GND				
Q5052	0.0	2.1	GND	Q5032	0.0	12.0	GND				
Q5054	0.2	3.8	GND	Q5033	11.6	2.5	12.0				
Q5056	0.5	3.4	GND								
Q5058	0.0	6.9	GND								
Q5060	0.0	0.5	GND								
Q5062	0.2	-12.0	0.8								

COMPONENT SIDE



CONDUCTOR SIDE



D BOARD LOCATOR LIST

DIODE		DIODE		IC		TRANSISTOR	
D5001	F-6	D6533	C-1	IC8004	D-8	Q6507	B-4
D5002	F-6	D6534	B-1	IC8005	D-6	Q6522	F-3
D5003	G-9	D6537	G-5	IC8006	D-8	Q6527	C-1
D5004	F-10	D6538	F-3	IC8104	C-5	Q6530	D-1
D5005	F-5	D8001	C-6	TRANSISTOR		Q6532	C-1
D5006	H-6	D8003	C-5	Q5001	F-10	Q8003	B-7
D5007	D-8	D8005	D-8	Q5002	F-10	Q8004	B-7
D5008	H-7	D8006	D-8	Q5003	F-9	Q8007	C-9
D5010	H-7	D8007	E-8	Q5004	F-5	Q8008	E-9
D5011	H-11	D8009	C-8	Q5005	F-6	Q8011	B-10
D5014	F-7	D8010	B-6	Q5006	G-7	Q8013	B-6
D5016	H-10	D8011	B-5	Q5007	G-7	Q8014	A-5
D5017	H-10	D8012	B-6	Q5008	H-7	Q8015	C-11
D5018	G-7	D8013	A-5	Q5009	F-6	Q8016	C-11
D5019	G-5	D8014	B-5	Q5010	F-5	Q8018	D-10
D5023	G-11	D8015	B-10	Q5011	I-7	Q8019	E-11
D5027	H-8	D8016	C-10	Q5012	I-11	Q8020	D-11
D5028	G-6	D8017	C-10	Q5013	H-12	Q8021	B-10
D5032	H-11	D8018	D-12	Q5014	I-7	Q8022	D-10
D5035	G-7	D8022	C-7	Q5015	C-12	Q8023	D-10
D5036	G-7	D8023	C-9	Q5018	H-6	Q8028	C-10
D5501	H-5	D8024	B-7	Q5019	E-7	Q8034	D-7
D5502	G-4	D8026	C-10	Q5020	E-8	Q8035	D-7
D5504	G-11	D8028	E-8	Q5021	G-5		
D5506	G-4	D8030	B-10	Q5022	H-6		
D5508	G-11	D8034	D-7	Q5023	G-5		
D5511	H-3	D8140	F-5	Q5024	G-6		
D5512	G-11	IC		Q5025	G-5		
D5513	H-4	IC5001	G-7	Q5026	G-6		
D5514	G-3	IC5002	H-7	Q5027	G-6		
D5515	H-4	IC5003	E-12	Q5028	F-10		
D6502	C-4	IC5004	F-6	Q5030	F-11		
D6504	E-2	IC5005	H-12	Q5031	E-8		
D6505	C-1	IC5006	E-6	Q5035	H-8		
D6508	G-4	IC5007	H-6	Q5036	G-6		
D6509	A-3	IC5502	G-4	Q5501	H-4		
D6510	B-3	IC5504	G-2	Q5502	G-4		
D6513	D-2	IC5506	F-3	Q5503	H-4		
D6514	D-2	IC5511	G-2	Q5504	F-1		
D6516	D-2	IC5512	F-1	Q5505	F-1		
D6518	E-5	IC5515	H-4	Q5506	G-5		
D6519	C-5	IC6500	H-2	Q5507	G-3		
D6520	C-5	IC6501	B-5	Q5510	H-3		
D6521	E-3	IC6502	I-1	Q5512	H-2		
D6523	F-4	IC6503	F-4	Q5513	H-12		
D6524	A-2	IC6505	G-4	Q5568	G-4		
D6530	A-2	IC8001	D-6	Q5569	G-3		
D6532	B-2	IC8002	B-6	Q6506	C-4		



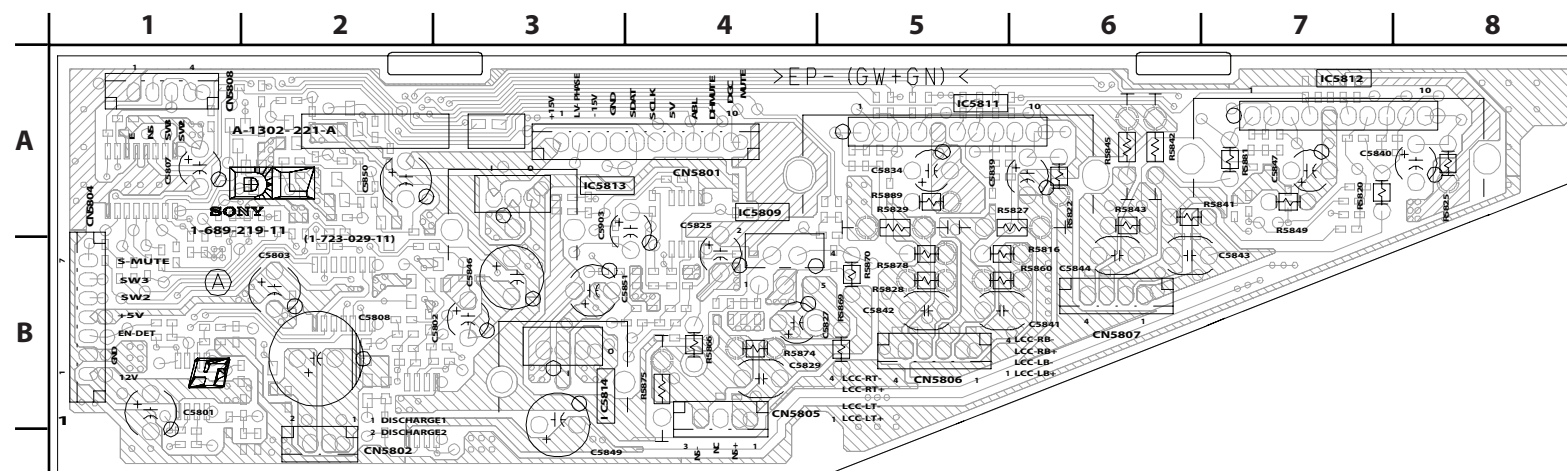
All voltages are in V.

DL BOARD TRANSISTOR VOLTAGE LIST

All voltages are in V.

DL

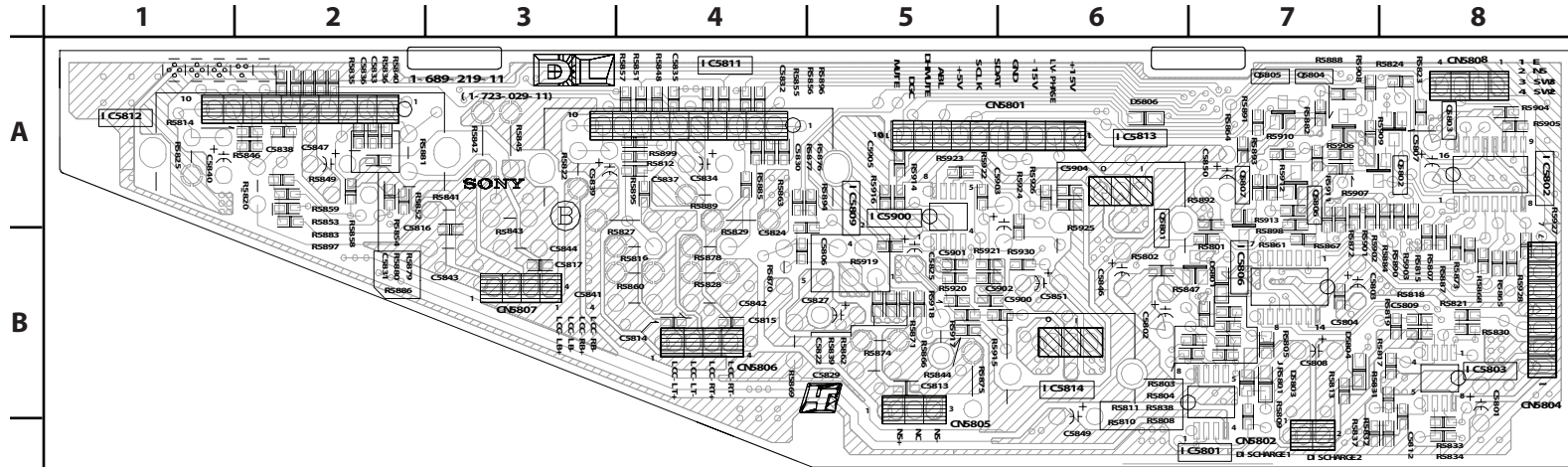
[LANDING]

COMPONENT SIDE

DL

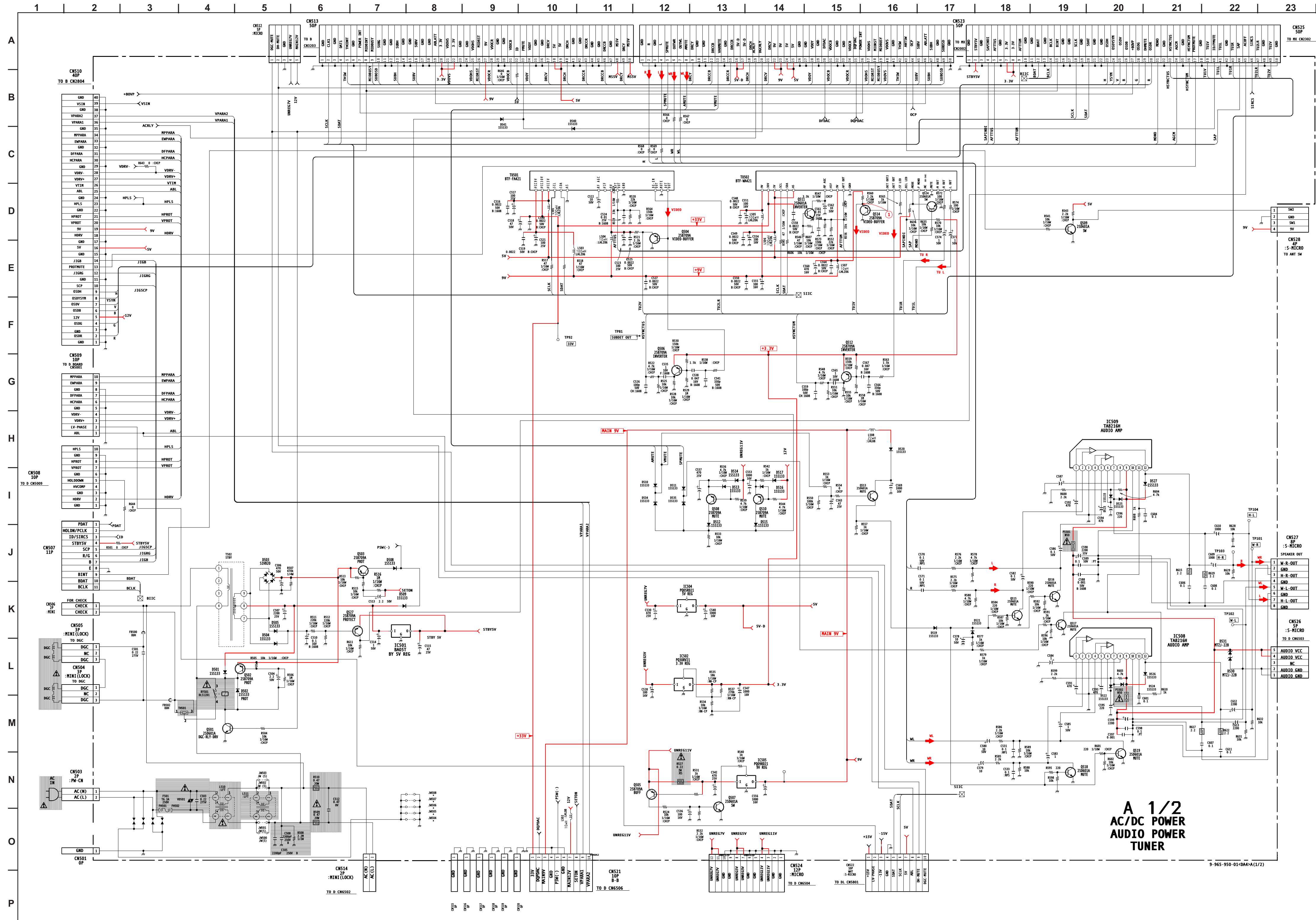
[LANDING]

CONDUCTOR SIDE

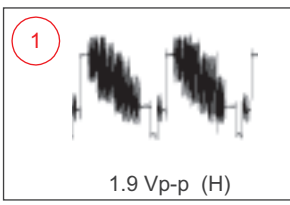




A BOARD SCHEMATIC DIAGRAM (1 OF 2)



A BOARD WAVEFORMS



A BOARD IC VOLTAGE LIST

IC501		IC508		8	5.1	IC903	
PIN	VOLT	PIN	VOLT	9	24.0	PIN	VOLT
I	7.0	1	1.6	10	0.0	1	4.9
O	5.0	2	0.1	11	4.4	2	4.9
GND	GND	3	GND	12	10.7	3	4.9
IC502		4	0.1	IC900		4	4.9
PIN	VOLT	5	1.6	PIN	VOLT	5	N/C
I	5.0	6	7.9	1	3.3	6	5.0
O	3.3	7	11.0	2	3.3	7	5.0
GND	GND	8	5.1	3	0.1	8	5.0
4	3.4	9	24.0	4	-15.7	9	5.0
IC504		10	0.0	5	GND	10	12.0
PIN	VOLT	11	4.4	6	15.3	11	4.5
I	7.0	12	10.6	7	N/C	12	5.0
O	5.0	IC509		8	3.3	13	5.0
GND	GND	PIN	VOLT	9	GND	14	1.2
4	N/C	1	1.6	IC901		15	5.0
IC505		2	0.1	PIN	VOLT	16	4.6
PIN	VOLT	3	GND	I	11.0	17	4.6
I	11.0	4	0.1	O	5.0	18	GND
O	9.0	5	1.6	GND	GND	All voltages are in V.	
GND	GND	6	8.0				
4	2.3	7	11.0				

All voltages are in V.

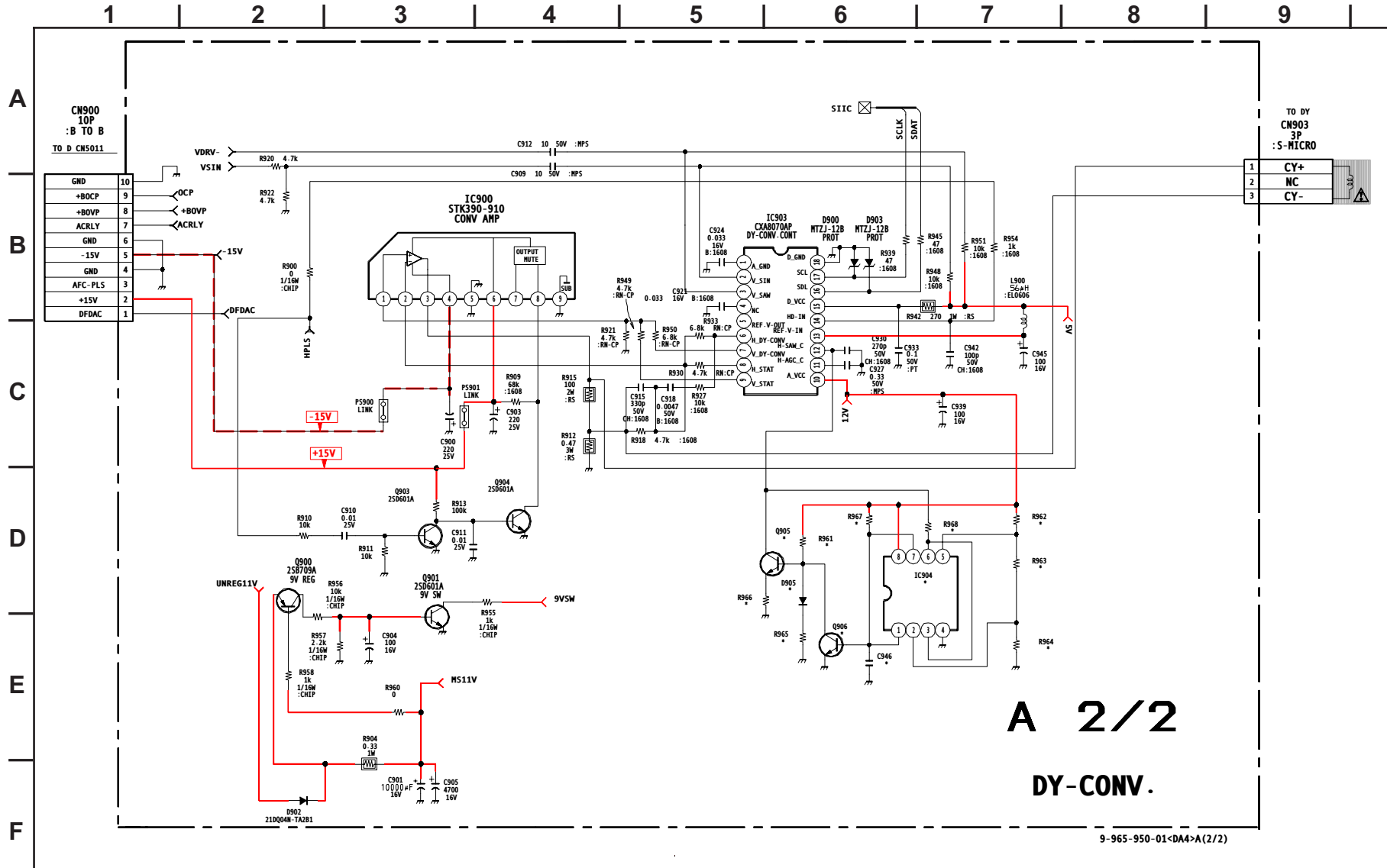
A BOARD TRANSISTOR VOLTAGE LIST

	B	C	E
Q501	0.1	19.4	GND
Q502	21.3	19.4	21.3
Q503	21.2	0.2	21.3
Q504	3.9	GND	4.5
Q505	10.0	0.1	11.0
Q506	3.5	0.5	3.3
Q507	0.1	2.3	GND
Q508	10.5	0.3	0.0
Q509	0.7	0.1	GND
Q510	12.0	0.0	12.0
Q511	0.1	7.5	GND
Q512	3.3	0.5	3.3
Q513	0.0	9.0	0.0
Q514	5.9	GND	6.5
Q515	0.0	0.0	GND
Q516	0.0	0.0	GND
Q517	0.0	4.4	GND
Q518	0.0	0.0	GND
Q519	0.0	0.0	GND
Q524	0.7	0.1	GND
Q527	9.8	0.0	5.0
Q900	10.5	0.0	10.7
Q901	0.0	2.4	GND
Q903	0.0	0.0	GND
Q904	0.0	3.1	GND

All voltages are in V.

A 1/2
AC/DC POWER
AUDIO POWER
TUNER

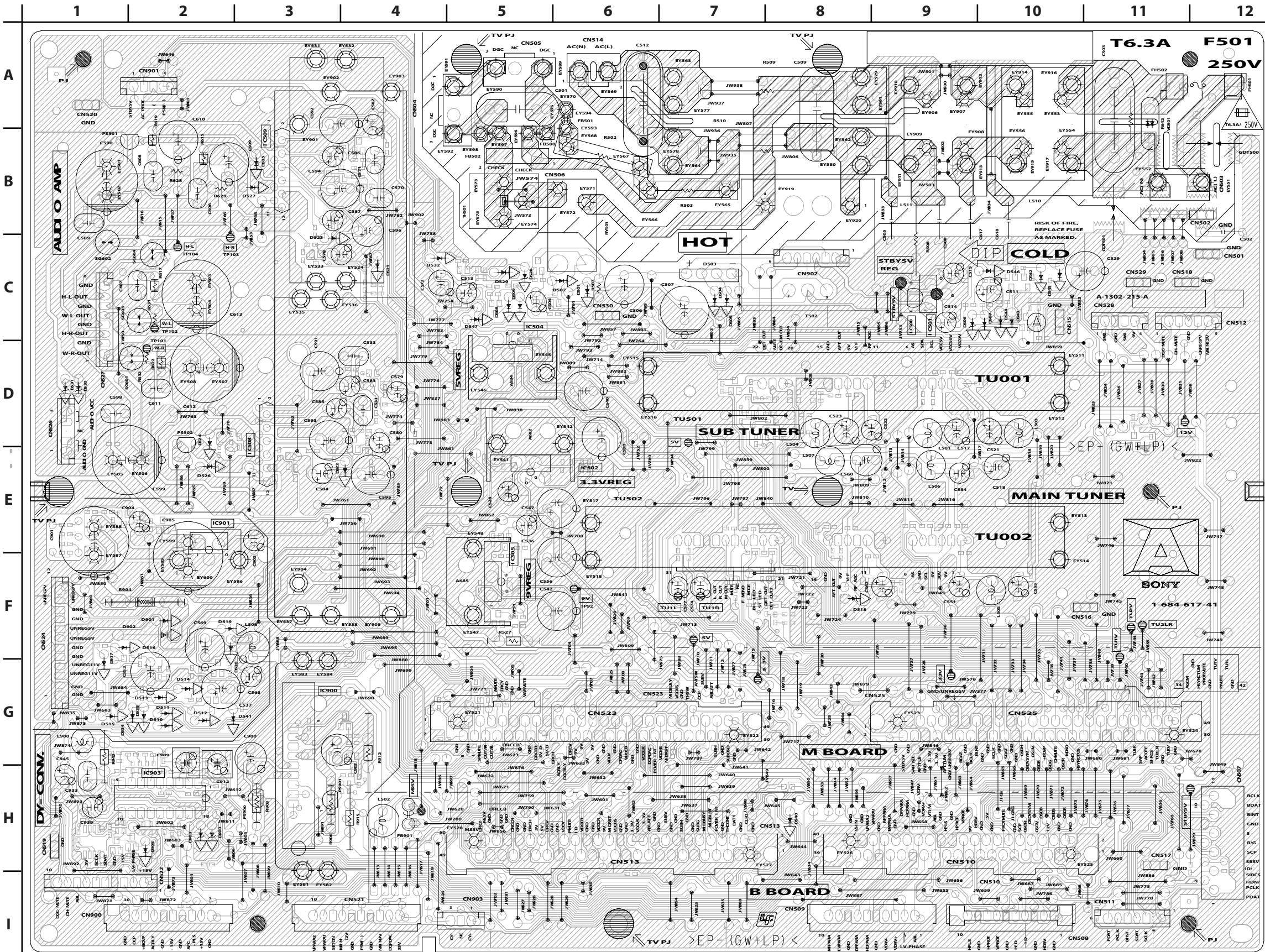
A BOARD SCHEMATIC DIAGRAM (2 OF 2)



A

[AC/DC POWER, AUDIO POWER, TUNER, DY-CONV]

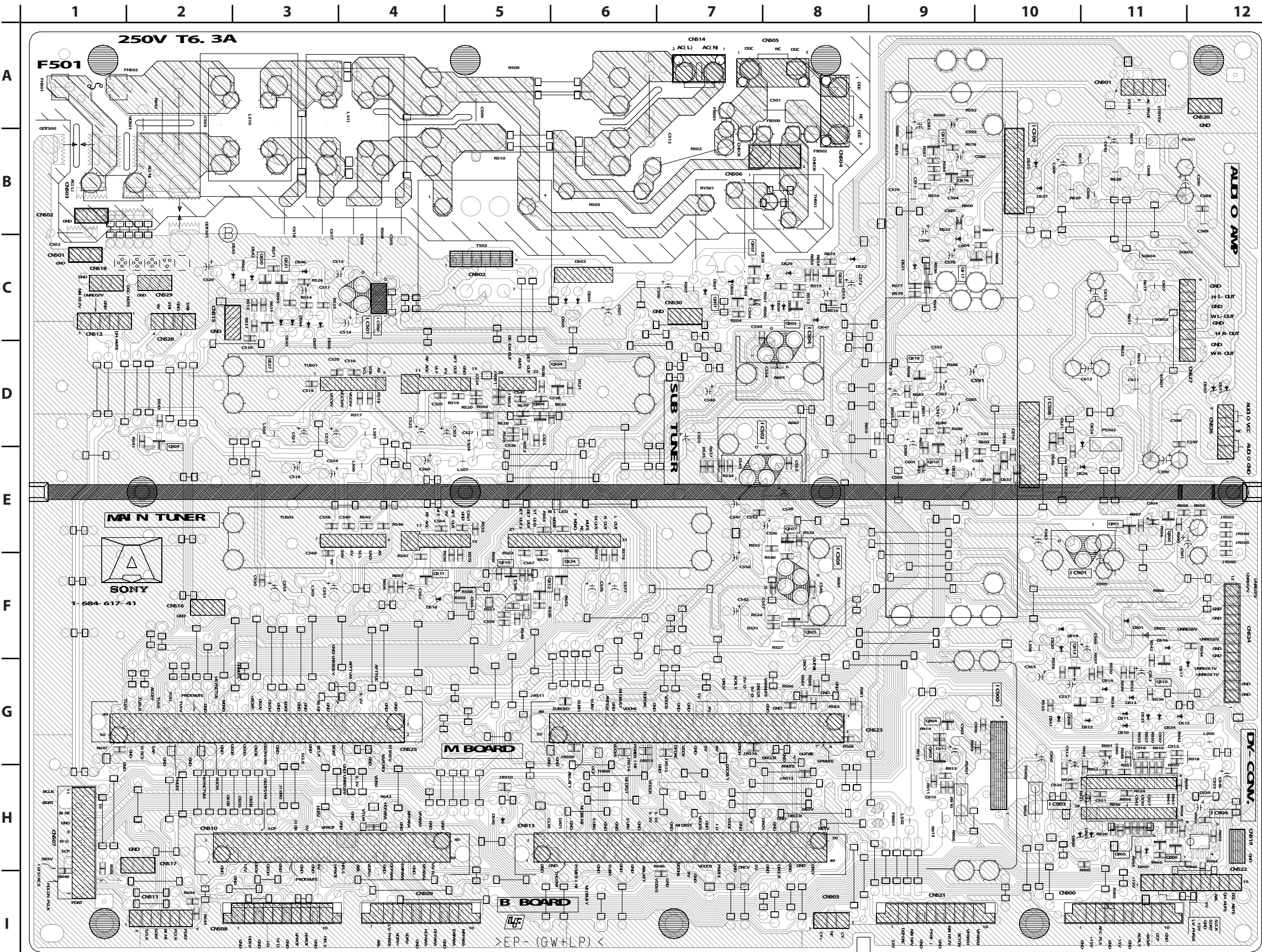
COMPONENT SIDE



A

[AC/DC POWER, AUDIO POWER, TUNER, DY-CONV]

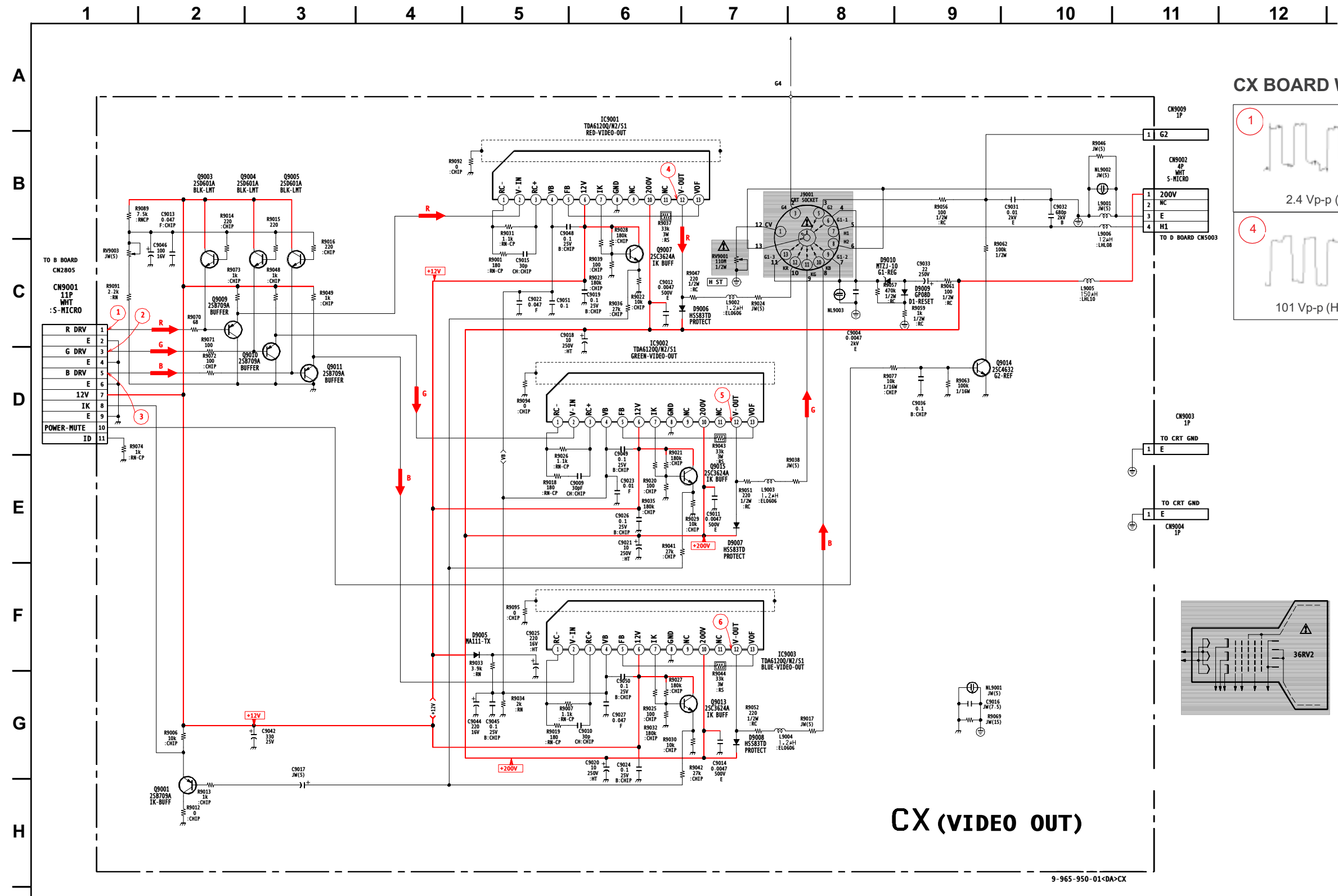
CONDUCTOR SIDE



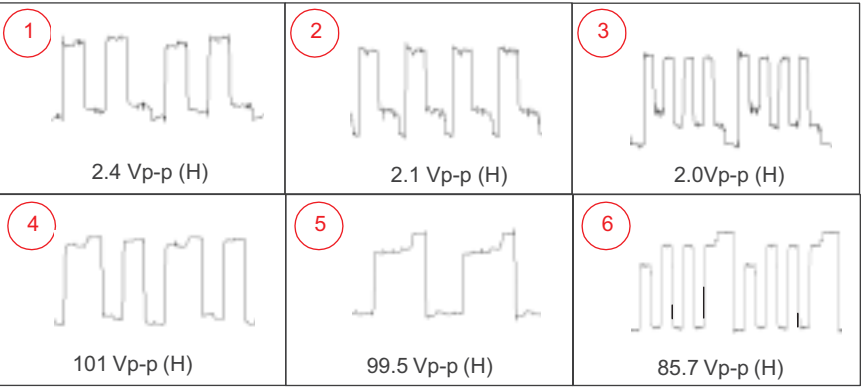
A BOARD LOCATOR LIST

DIODE		IC	
D501	C-7	IC501	C-4
D502	C-7	IC502	D-8
D503	C-6	IC504	C-8
D504	C-6	IC505	E-8
D505	C-6	IC508	D-10
D508	C-8	IC509	B-10
D509	C-8	IC900	G-10
D510	G-11	IC903	H-11
D511	G-11	IC904	H-11
D512	G-11	TRANSISTOR	
D513	G-11	Q501	C-7
D514	G-11	Q502	B-7
D515	G-11	Q503	C-8
D516	F-11	Q504	D-6
D517	F-11	Q505	F-8
D519	F-11	Q506	D-5
D520	F-10	Q507	E-8
D521	C-9	Q508	G-10
D522	E-9	Q509	E-2
D523	B-9	Q510	G-11
D524	D-11	Q511	F-4
D525	B-10	Q512	F-6
D526	E-11	Q513	F-10
D527	B-10	Q514	F-5
D530	D-12	Q515	B-9
D531	D-12	Q516	B-9
D534	G-11	Q517	C-9
D535	G-11	Q518	D-9
D540	H-5	Q519	E-9
D541	G-10	Q524	F-6
D900	H-11	Q527	C-3
D902	F-11	Q900	E-11
D903	H-11	Q901	E-11
D905	H-11	Q903	G-9
		Q904	G-9
		Q905	H-11
		Q906	H-11

CX BOARD SCHEMATIC DIAGRAM



CX BOARD WAVEFORMS



CX BOARD IC VOLTAGE LIST

IC9001		IC9002		IC9003	
PIN	VOLT	PIN	VOLT	PIN	VOLT
1	0.0	1	0.0	1	0.0
2	3.5	2	3.5	2	3.5
3	5.0	3	5.0	3	5.0
4	3.5	4	3.5	4	3.5
5	0.0	5	0.0	5	0.0
6	12.0	6	12.0	6	12.0
7	9.4	7	9.4	7	9.4
8	GND	8	GND	8	GND
9	N/C	9	N/C	9	N/C
10	200.0	10	200.0	10	200.0
11	N/C	11	N/C	11	N/C
12	144.4	12	154.0	12	145.0
13	2.2	13	124.0	13	24.5

All voltages are in V.

CX BOARD TRANSISTOR VOLTAGE LIST

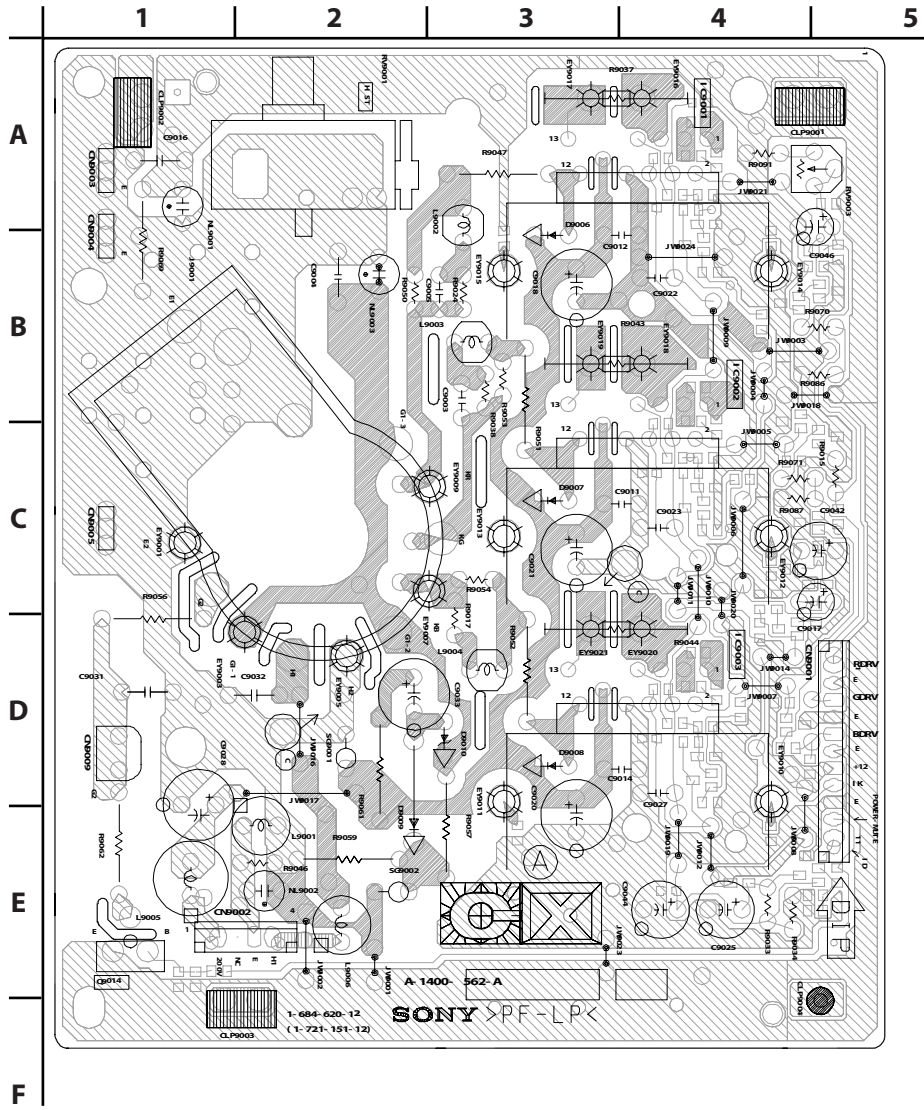
	B	C	E
Q9001	8.6	GND	3.6
Q9003	2.2	12.0	3.6
Q9004	2.2	12.0	3.7
Q9005	2.2	12.0	3.5
Q9007	9.1	12.0	8.4
Q9009	3.7	GND	4.3
Q9010	3.7	GND	4.4
Q9011	3.5	GND	4.2
Q9013	9.0	12.0	8.5
Q9014	0.0	264.7	GND
Q9015	9.0	12.0	8.5

All voltages are in V.

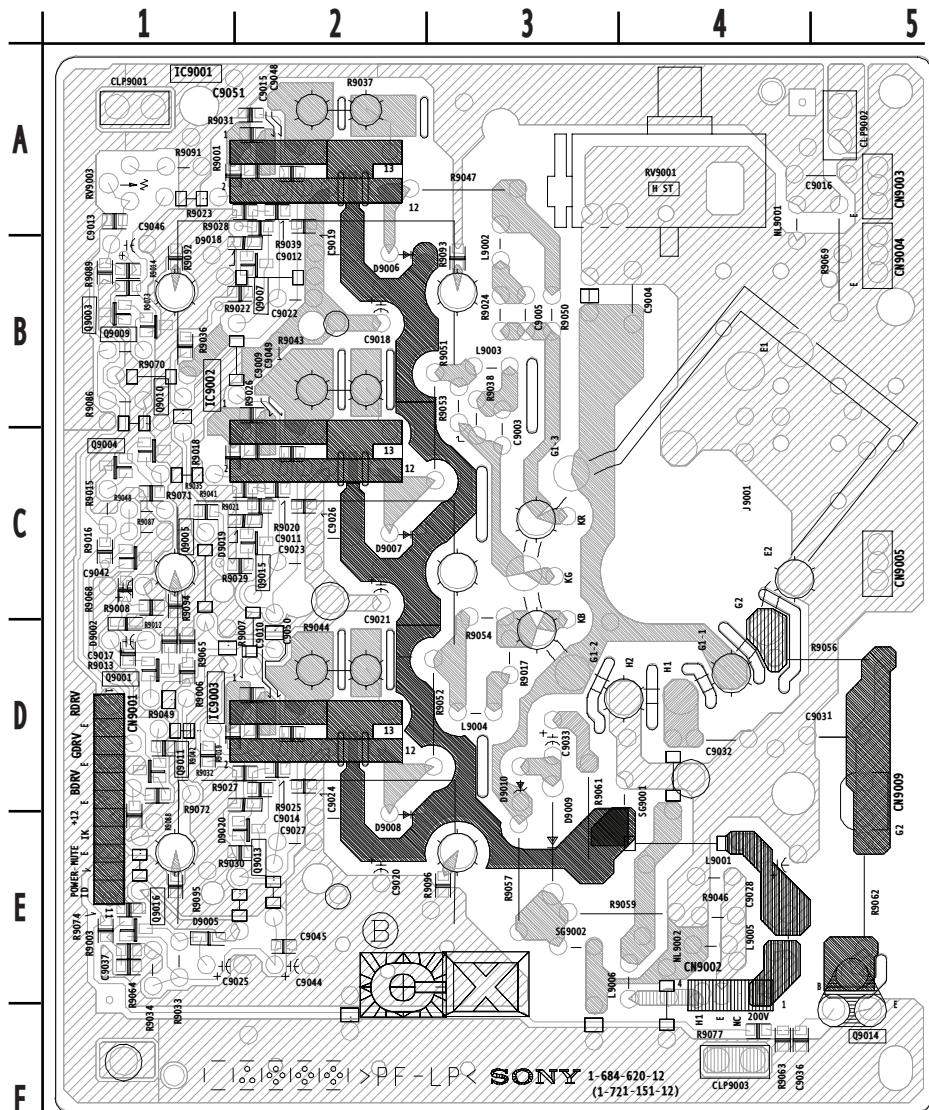
CX (VIDEO OUT)

9-965-950-01<DA>CX

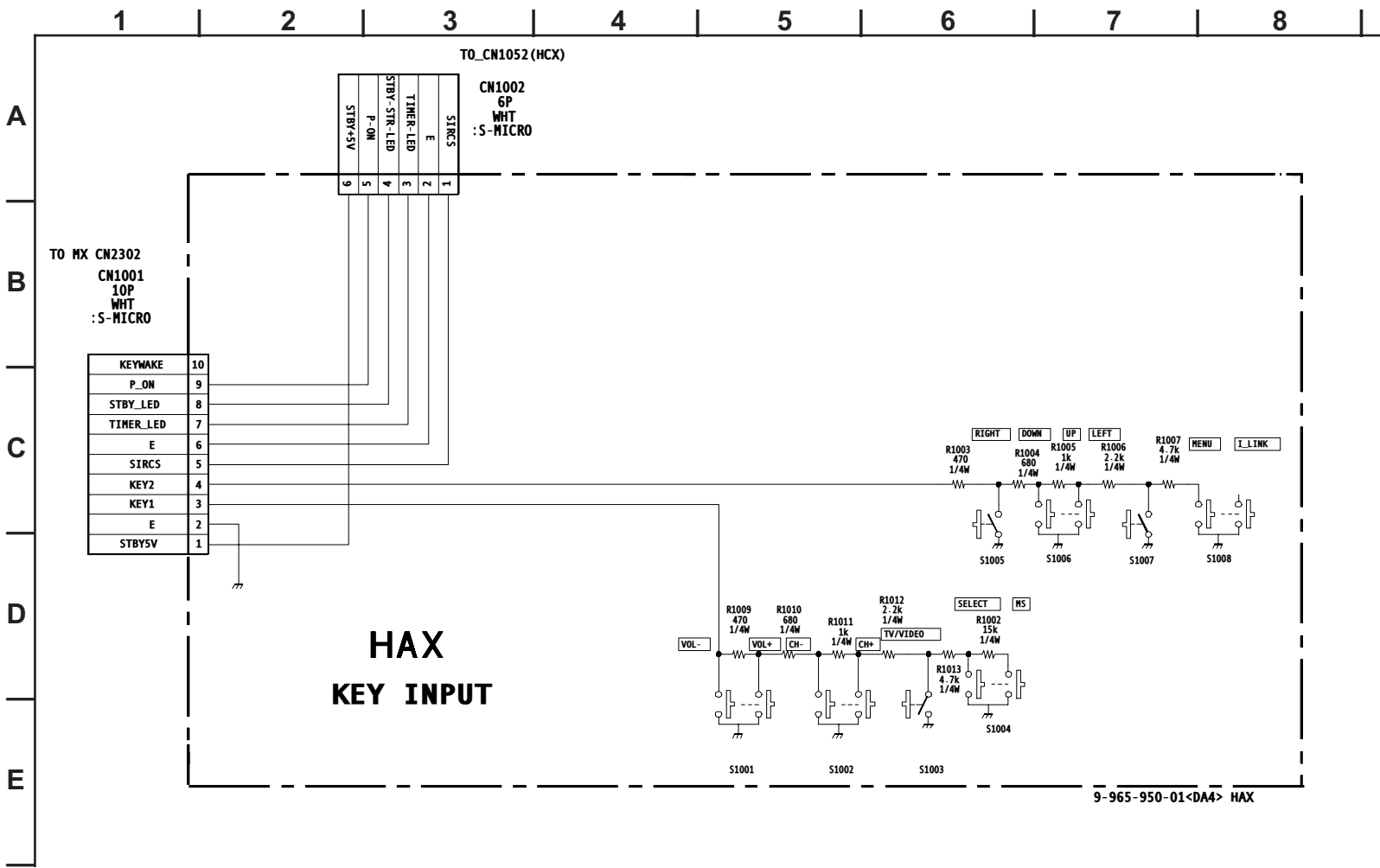
CX [VIDEO OUT]
COMPONENT SIDE



CX [VIDEO OUT]
CONDUCTOR SIDE

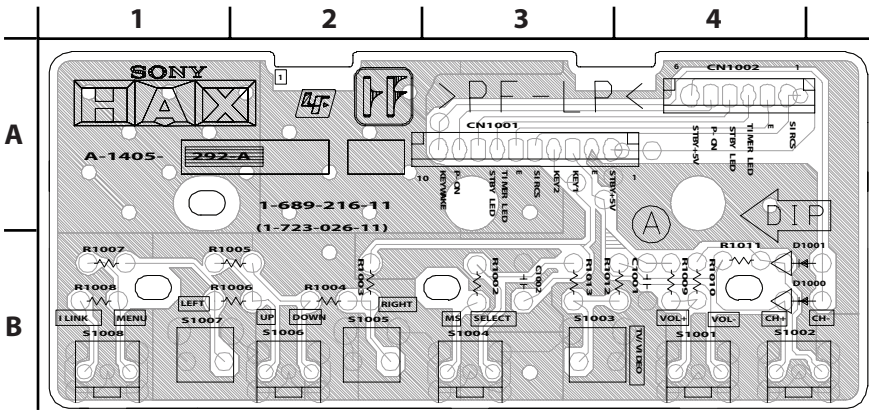


HAX BOARD SCHEMATIC DIAGRAM



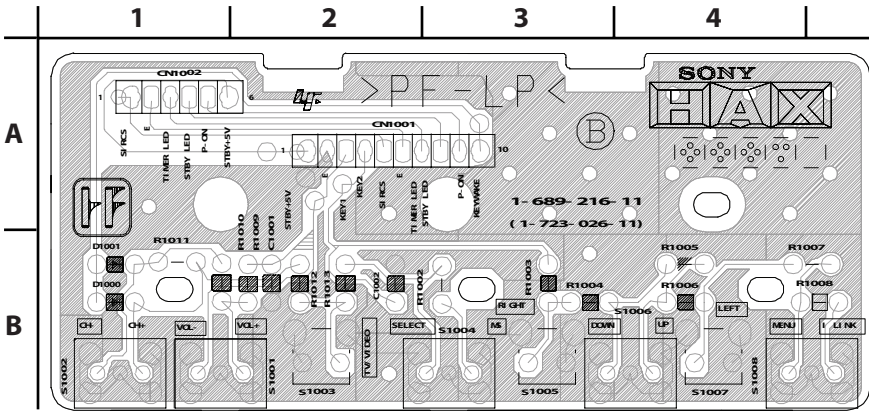
[KEY INPUT]

COMPONENT SIDE

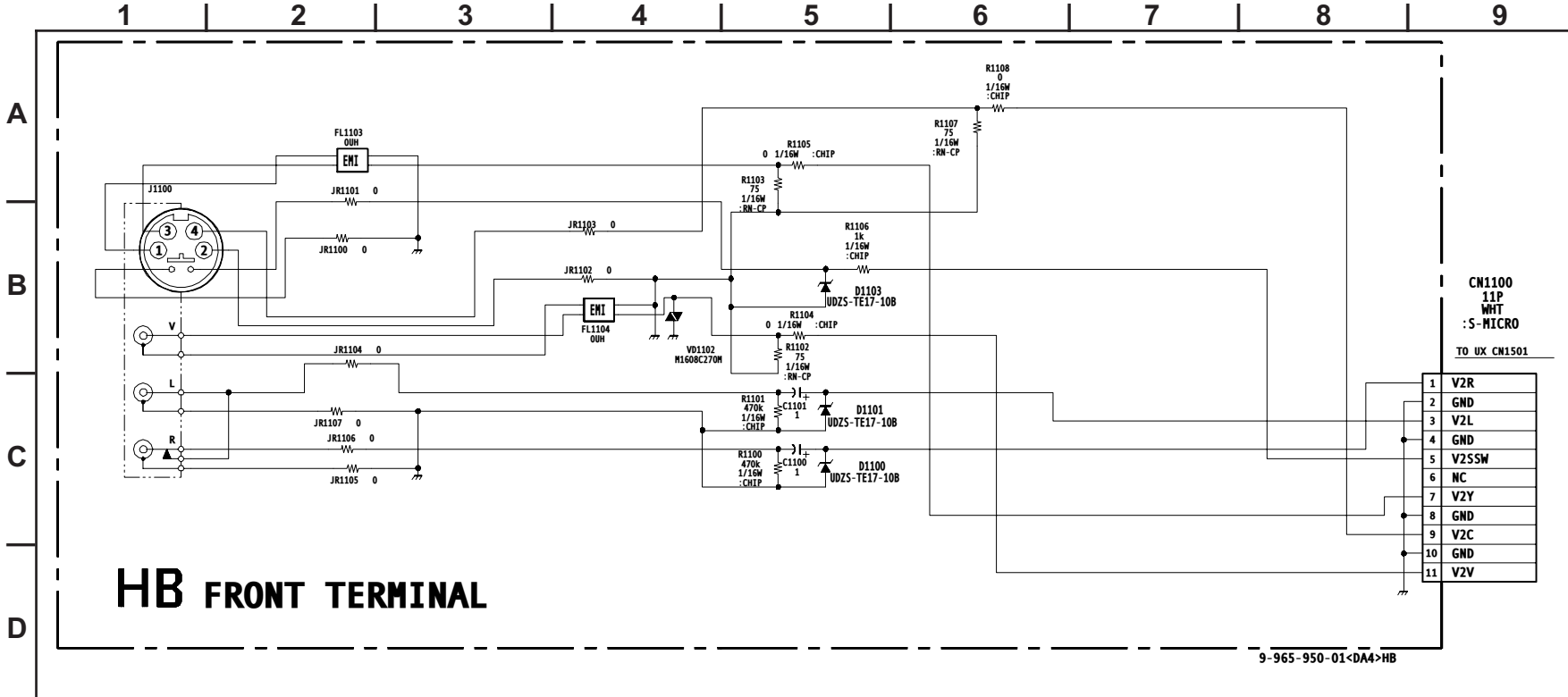


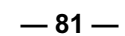
[KEY INPUT]

CONDUCTOR SIDE



HB BOARD SCHEMATIC DIAGRAM





WX BOARD IC VOLTAGE LIST

IC9100		IC9102		IC9103	
PIN	VOLT	PIN	VOLT	PIN	VOLT
1	NC	1	0.0	1	6.0
2	0.0	2	0.0	2	3.5
3	0.0	3	0.0	3	3.6
4	0.5	4	0.0	4	-12.0
5	-12.0	5	-12.0	5	1.2
6	0.5	6	NC	6	1.2
7	0.5	7	NC	7	1.2
8	0.0	8	NC	8	12.0
9	NC	9	NC	All voltages are in V.	
10	12.0	10	12.0		

WX BOARD TRANSISTOR VOLTAGE LIST

	B	C	E
Q9100	4.3	5.2	3.6
Q9101	0.0	9.0	5.2
Q9102	3.6	GND	4.3
Q9103	5.1	9.0	4.5
Q9104	3.6	GND	4.3
Q9105	5.1	9.0	4.5
Q9106	3.6	GND	4.3
Q9107	5.1	9.0	4.5
Q9108	3.6	GND	4.3
Q9109	5.1	9.0	4.5
Q9110	0.8	66.7	0.2
Q9111	133.8	66.7	134.3
Q9112	0.6	12.0	1.2
Q9113	0.6	0.0	GND
Q9114	0.6	0.0	GND
Q9115	0.6	0.0	GND
Q9116	4.7	4.2	GND
Q9117	6.6	12.0	6.7
Q9118	6.6	GND	6.7
Q9121	5.1	9.0	4.5
Q9122	5.1	9.0	4.5
Q9123	3.6	GND	4.3
Q9124	3.6	GND	4.3
Q9125	5.7	12.0	6.3

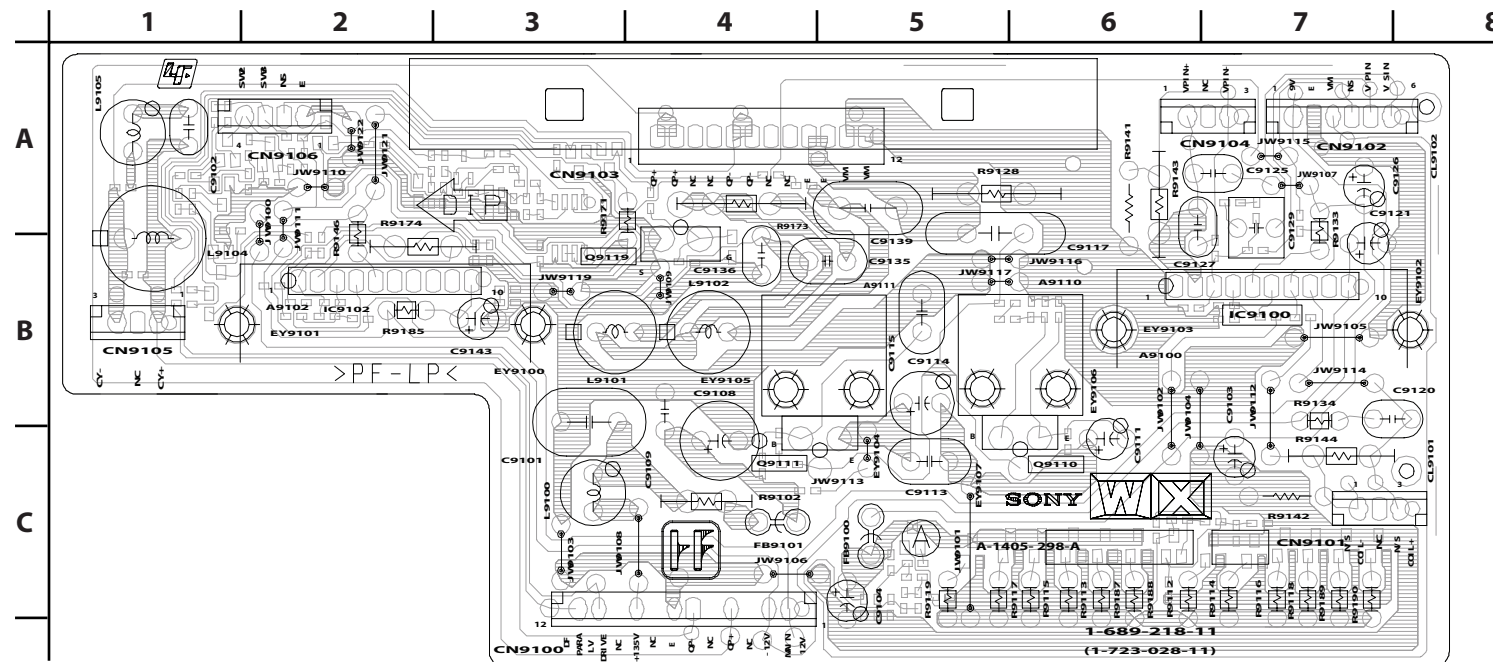
	D	G	S
Q9119	0.0	6.7	GND

All voltages are in V.



[VELOCITY MOD]

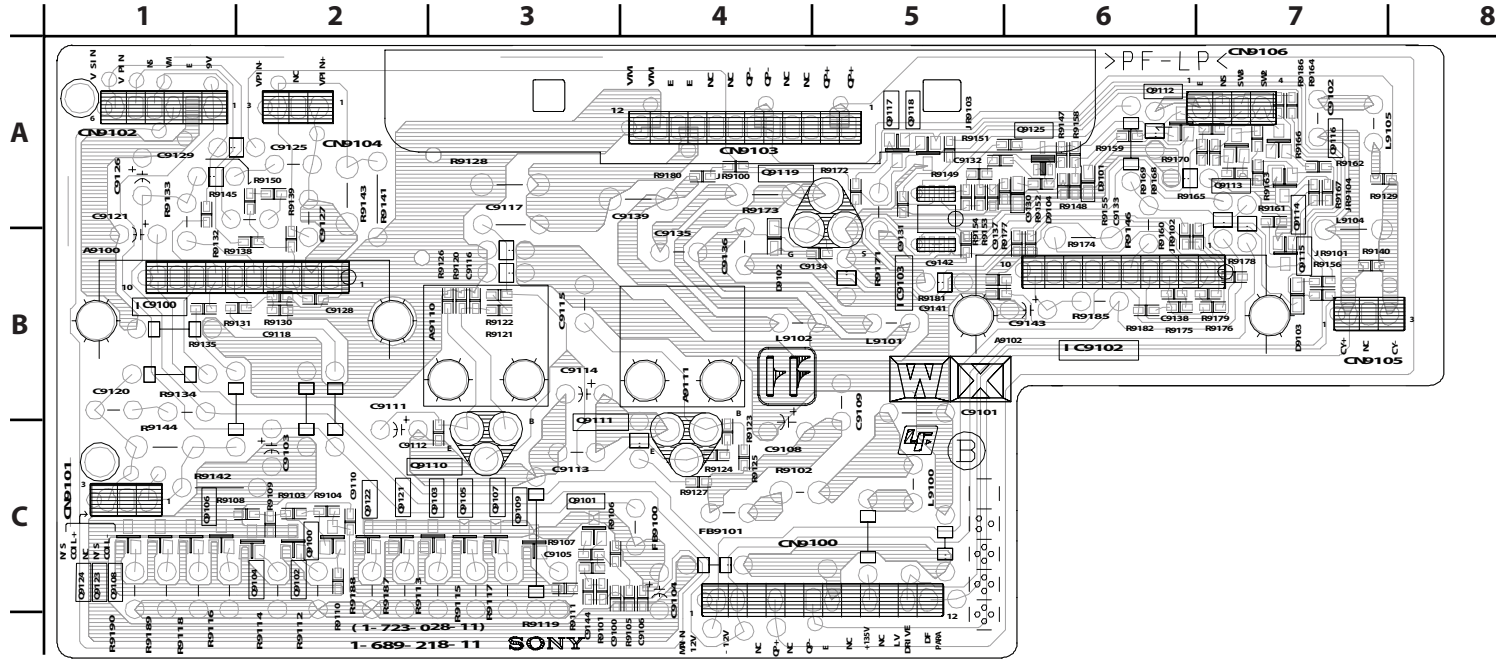
COMPONENT SIDE



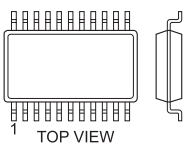
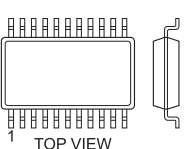
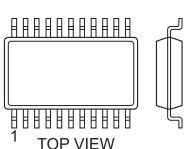
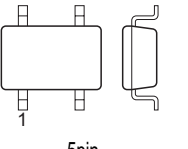
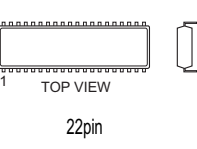
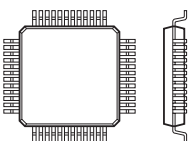
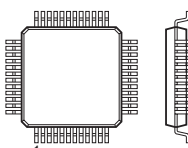
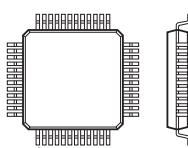
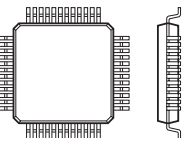
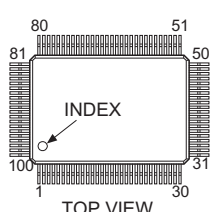
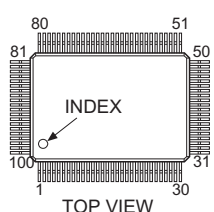
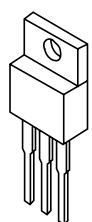
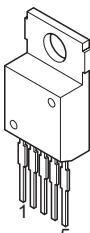
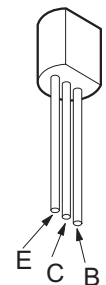
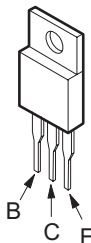
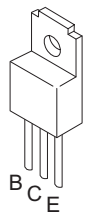
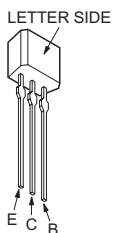
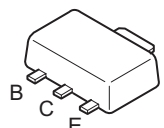
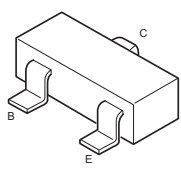
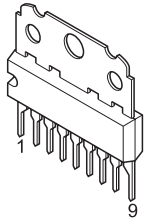
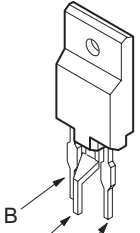
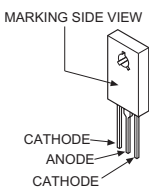
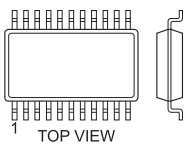


[VELOCITY MOD]

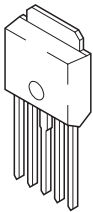
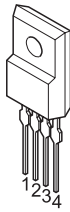
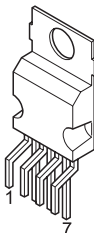
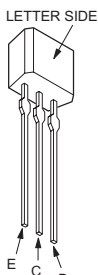
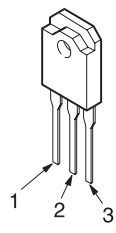
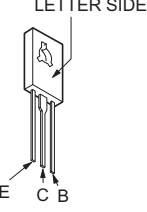
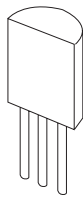
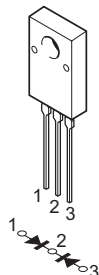
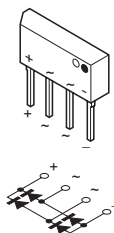
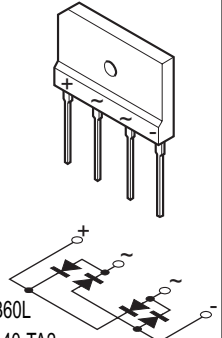
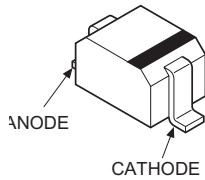
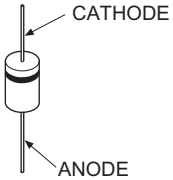
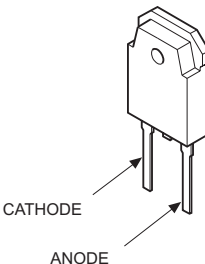
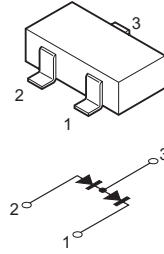
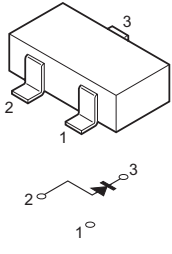
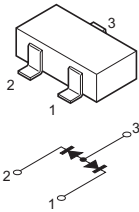
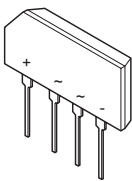
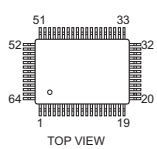
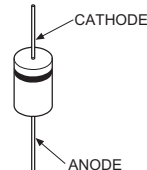
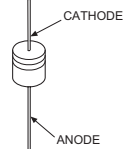
CONDUCTOR SIDE



5-5. SEMICONDUCTORS (1 OF 2)

 <p>14pin</p> <p>M52055FP TLC2932IPW TLC2933IPWR-12</p>	 <p>16pin</p> <p>CXD2085M-T4 SN74LV4053ANSR</p>	 <p>32pin</p> <p>BH3868AFS-E2</p>	 <p>5pin</p> <p>PST9120NL PST9145NL TC7SET08FU(TE85L)</p>	 <p>22pin</p> <p>CXA2026AS</p>
 <p>32pin</p> <p>CXD2073Q-T4</p>	 <p>48pin</p> <p>CXA2103Q CXA2150Q</p>	 <p>64pin</p> <p>TLC5733AIPM</p>	 <p>240pin</p> <p>CXD9509AQ</p>	 <p>CXA2151Q</p>
 <p>M306V2ME-153FP</p>	 <p>NJM79M12FA</p>	 <p>LA6500-FA</p>	 <p>2SA1208S-TP 2SA10910-TPE</p>	 <p>IRF614 IRF1644-G-LF36 IRF19630GS</p>
 <p>2SA2005 2SC5511</p>	 <p>2SC3311A-QRSTA</p>	 <p>2SK2036(TE85L)</p>	 <p>DTA114EKA-T146 DTC114TKA-T146 DTC144EKA-T146 2SA1226 2SD601A-QRS-TX 2SB709A-QRS-TX 2SC2412K-T-146-QR 2SD2114KT146</p>	
 <p>TDA6111Q/N4</p>	 <p>2SC4632LS-CB7</p>	 <p>D5LC20U</p>	 <p>NJM2901M-TE2 NJM2903M-TE2 NJM2904M-TE2 NJM4558E(TE2) TC7WU04FU(TE12R)</p>	

SEMICONDUCTORS (2 OF 2)


 <p>PQ07VZ012P</p>	 <p>PQ09RD21 PQ05RF21 PQ12RF21 PQ30RV21</p>	 <p>STV9379</p>	 <p>LETTER SIDE E C B 2SA1776TV2Q 2SA1309A-QRSTA</p>	 <p>2SC3997S-SONY</p>
 <p>LETTER SIDE E C B 2SC2688-LK 2SC3840K</p>	 <p>UPC1093J</p>	 <p>D5SC4M D8LC40F</p>	 <p>S1VB20</p>	 <p>D6SB60L D1NL40-TA2</p>
 <p>ANODE CATHODE MA111-TX MA113-TX UDZSTE-1710B UDZSTE-176.8B UDZSTE-17-12</p>	 <p>CATHODE ANODE 1SS133T-77 D1NL20U-TR ERC91-02E</p>	 <p>CATHODE ANODE PG124S15</p>	 <p>MA153-TX</p>	 <p>MA3091-TX</p>
 <p>DAN202K-T-146</p>	 <p>D4SBS6-F</p>	 <p>TOP VIEW CXA2069Q CXP85840A-039Q</p>	 <p>CATHODE ANODE D1NL20U-TA2 ERA22-08TP3 ERC04-06SE GP08DPKG23 HSS83TD HZU11B1TRF RGP02-20EL-6394 MTZJ-77-22B</p>	
			 <p>CATHODE ANODE D1NS4-TA2 MTZJ-T-77-15 MTZJ-T-77-15B MTZJ-T-77-33B MTZJ-T-77-10 MTZJ-T-77-12 MTZJ-T-77-13C MTZJ-T-77-2.0A MTZJ-T-77-22 MTZJ-T-77-3.0B</p>	


SECTION 6: EXPLODED VIEWS

Components not identified by a part number or description are not stocked because they are seldom required for routine service.

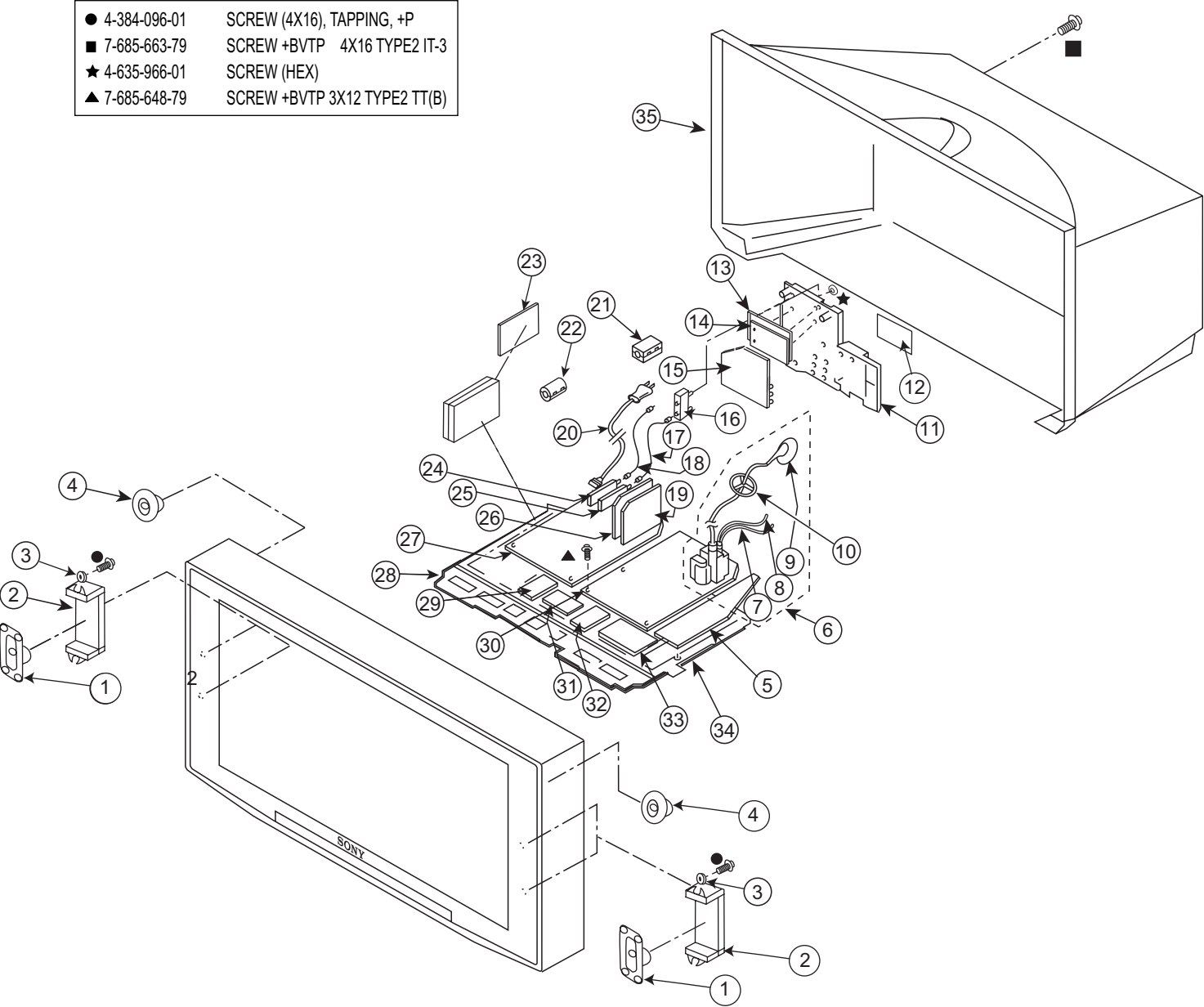
The component parts of an assembly are indicated by the reference numbers in the far right column of the parts list and within the dotted lines of the diagram.







* Items marked with an asterisk are not stocked since they are seldom required for routine service. Expect some delay when ordering these components.

NOTE: The components identified by shading and  mark are critical for safety. Replace only with part number specified.

NOTE: Les composants identifiés par un trame et une marque  sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

6-1. CHASSIS



REF.NO.	PART NO.	DESCRIPTION	ASSEMBLY INCLUDES	REF.NO.	PART NO.	DESCRIPTION
1	1-825-511-11	LOUD SPEAKER		* 26	A-1302-216-A	MX BOARD, COMPLETE
* 2	4-086-708-01	BRACKET, SPEAKER		* 27	A-1302-535-A	A BOARD, COMPLETE
3	4-374-745-31	CUSHION (A)				(KV-30XBR910 ONLY)
4	1-825-512-11	LOUD SPEAKER		* 27	A-1302-215-A	A BOARD, COMPLETE
* 5	A-1302-223-A	DL BOARD, COMPLETE				(KV-34XBR910 ONLY)
		(KV-30XBR910 ONLY)		* 28	4-093-830-01	BRACKET, H
* 5	A-1302-221-A	DL BOARD, COMPLETE				
		(KV-34XBR910 ONLY)		* 29	A-1405-295-A	HB BOARD, MOUNTED
	6	1-453-387-21	FBT ASSY/NX-6020//M3J4	* 30	A-1302-222-A	D BOARD, COMPLETE
	7	1-900-805-22	CONNECTOR ASSY, G2 HV			(KV-30XBR910 ONLY)
	8	1-900-805-19	WIRE ASSY, FOCUS HV	* 30	A-1302-219-A	D BOARD, COMPLETE
	9	1-251-715-22	CAP ASSY, HIGH-VOLTAGE			(KV-34XBR910 ONLY)
10	4-084-918-01	HOLDER, HV CABLE	(7-9)			The high-voltage leads associated with the FBT on this D Board are not included and must be ordered separately (SEE 7-9).
* 11	4-095-272-01	BRACKET, U		* 31	A-1302-218-A	HMX BOARD, COMPLETE
12	4-093-956-01	LABEL, TERMINAL		* 32	A-1405-292-A	HAX BOARD, MOUNTED
13	X-4041-009-1	SHIELD ASSY, UD				
* 14	A-1300-324-A	UD BOARD, COMPLETE		* 33	A-1302-498-A	HCX BOARD, COMPLETE
* 15	A-1302-217-A	UX BOARD, COMPLETE				(KV-30XBR910 ONLY)
	16	1-771-787-13	SWITCH, RF ANTENNA	* 33	A-1302-489-A	HCX BOARD, COMPLETE
17	1-557-056-51	CABLE, P-P				(KV-34XBR910 ONLY)
* 18	1-555-400-00	CABLE, PIN		* 34	4-095-271-01	BRACKET, MAIN
* 19	A-1300-327-A	B BOARD, COMPLETE		35	4-095-439-01	COVER, REAR
	20	1-769-837-11	CORD, POWER(WITH NOISE FILTER)			(KV-30XBR910 ONLY)
				35	4-095-438-01	COVER, REAR
						(KV-34XBR910 ONLY)
21	1-500-082-11	CLAMP, SLEEVE FERRITE				
22	1-500-586-11	FILTER, CLAMP (FERRITE CORE)				
* 23	A-1302-220-A	V BOARD, COMPLETE				
24	8-598-594-20	TUNER, FSS BTF-FA421				
25	8-598-593-40	TUNER, FSS BTF-WA421				

NOTE: The components identified by shading and  mark are critical for safety. Replace only with part number specified.

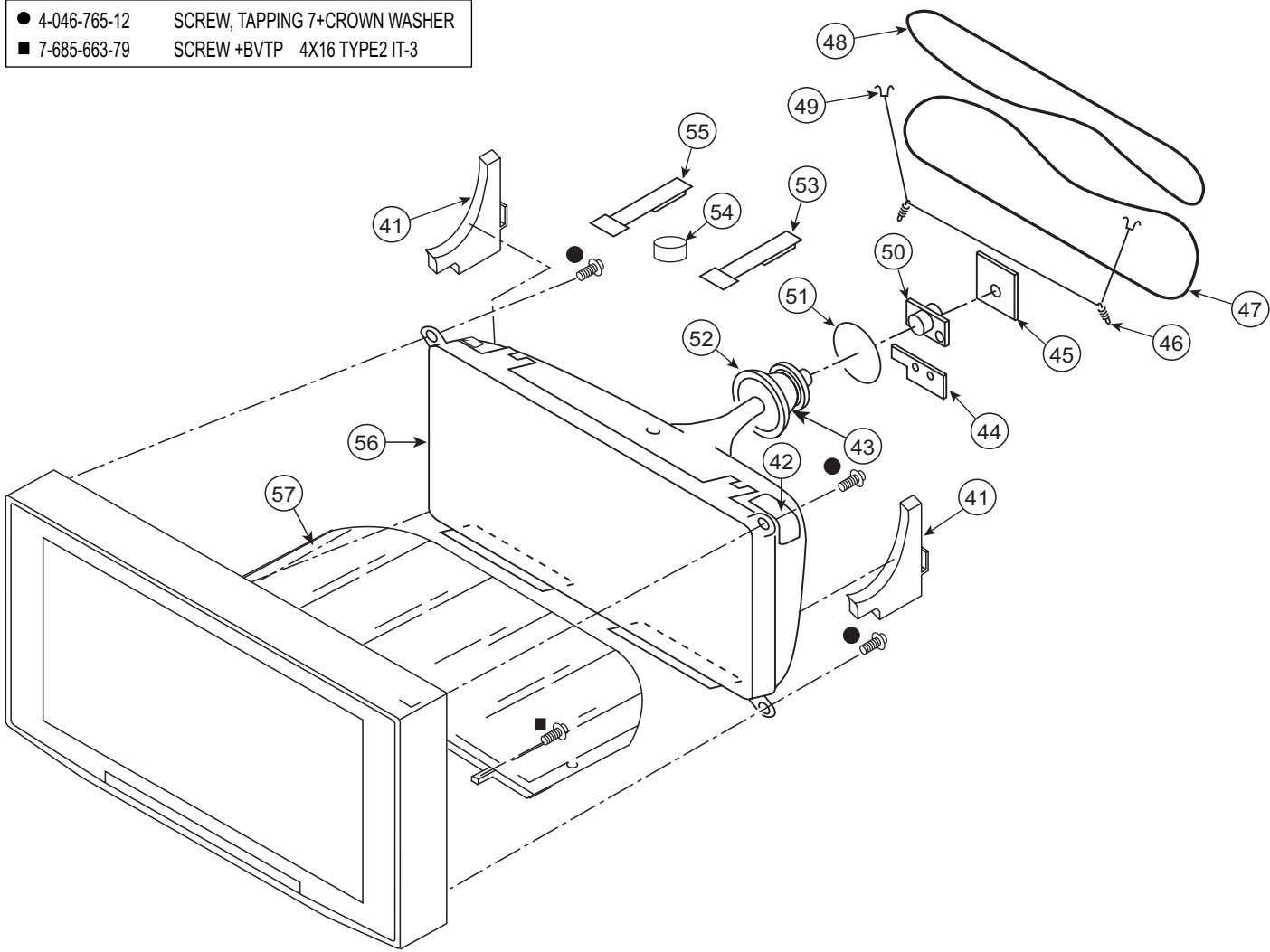
NOTE: Les composants identifiés par un trame et une marque  sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.

6-2. PICTURE TUBE

- 4-046-765-12

SCREW, TAPPING 7+CROWN WASHER
- 7-685-663-79

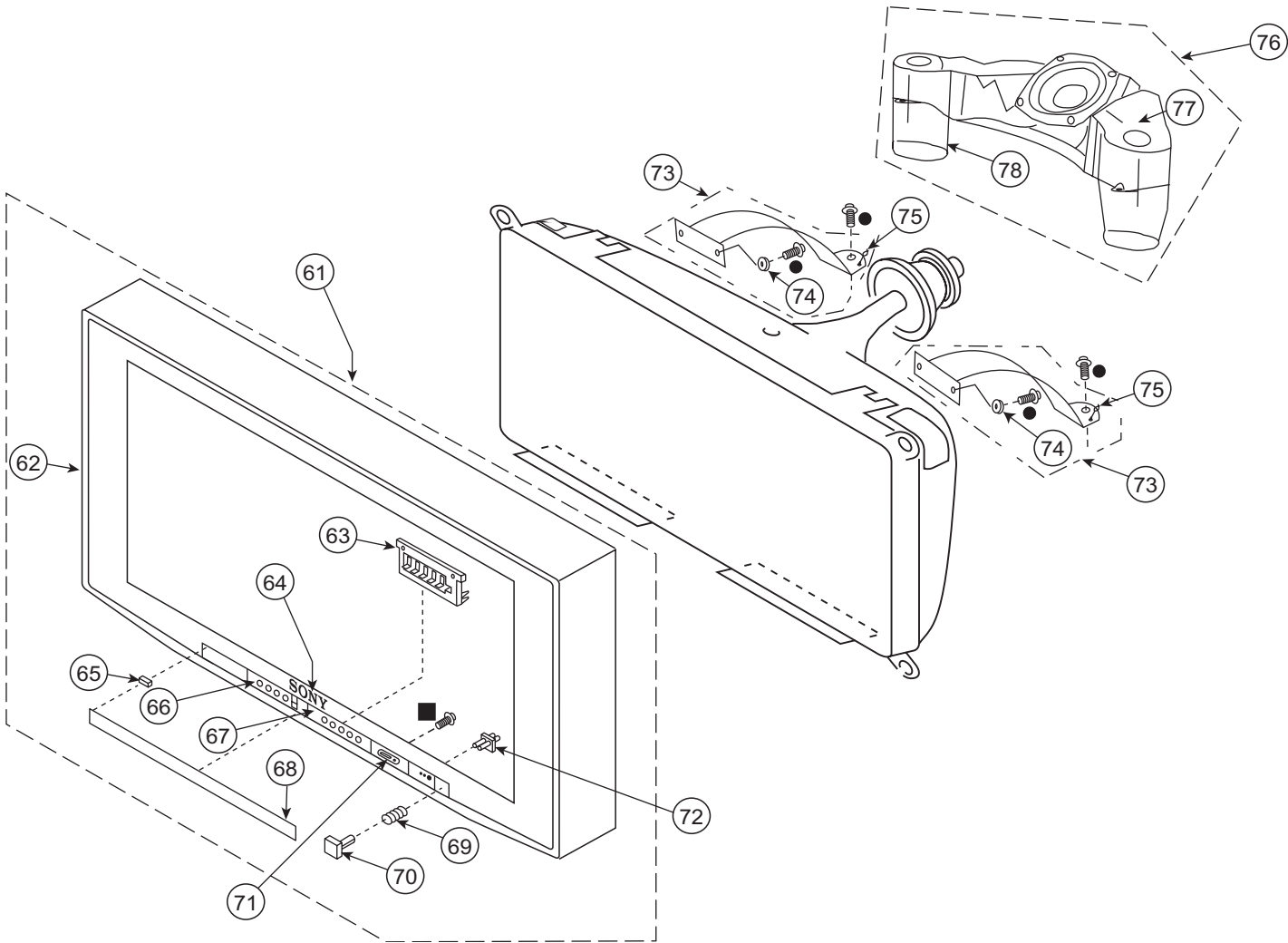
SCREW +BVTP 4X16 TYPE2 IT-3



REF.NO.	PART NO.	DESCRIPTION	REF.NO.	PART NO.	DESCRIPTION
41	4-093-794-01	SUPPORTER, CRT (KV-30XBR910 ONLY)	 50	1-419-792-11	LANDING CORRECTION COIL (KV-30XBR910 ONLY)
41	4-093-523-01	SUPPORTER, CRT (KV-34XBR910 ONLY)	 50	1-424-695-11	COIL, LANDING CORRECTION (KV-34XBR910 ONLY)
42	4-066-625-01	TAPE (M), CRT	 51	1-451-498-31	COIL, NA ROTATION
 43	8-453-018-11	NECK ASSEMBLY NA2918-M (KV-30XBR910 ONLY)	 52	1-451-551-21	DEFLECTION YOKE (Y32VEC-T) (KV-30XBR910 ONLY)
 43	8-453-009-31	NECK ASSEMBLY NA325-M3 (KV-34XBR910 ONLY)	 52	8-451-530-21	DEFLECTION YOKE Y36DEC-M2 (KV-34XBR910 ONLY)
* 44	A-1405-301-A	WX (VAR) BOARD, MOUNTED (KV-30XBR910 ONLY)	53	4-051-734-21	PIECE B(120), CONV. CORRECT
* 44	A-1405-298-A	WX (VAR) BOARD, MOUNTED (KV-34XBR910 ONLY)	54	1-452-032-00	MAGNET,DISC
* 45	A-1400-562-A	CX BOARD, MOUNTED	55	4-083-414-01	PIECE A(110), CONV CORRECT
46	4-065-852-01	SPRING, EXTENSION	 56	8-735-117-05	CRT 32RDE W76LXY015X (KV-30XBR910 ONLY)
 47	1-456-473-21	DEGAUSSING COIL (WITH LCC) (KV-30XBR910 ONLY)	 56	8-735-118-05	CRT 36RDE W86LXX015X (KV-34XBR910 ONLY)
 47	1-456-472-21	DEGAUSSING COIL (WITH LCC) (KV-34XBR910 ONLY)	* 57	4-093-793-01	BOARD, BOTTOM (KV-30XBR910 ONLY)
 48	1-456-473-11	DEGAUSSING COIL (WITH LCC) (KV-30XBR910 ONLY)	* 57	4-093-522-01	BOARD, BOTTOM (KV-34XBR910 ONLY)
 48	1-456-472-11	DEGAUSSING COIL (WITH LCC) (KV-34XBR910 ONLY)			
49	4-097-335-01	HOOK, GROUND WIRE			


6-3. BEZNET


- 4-384-096-01
- SCREW (4X16), TAPPING, +P




REF.NO.	PART NO.	DESCRIPTION	ASSEMBLY INCLUDES	REF.NO.	PART NO.	DESCRIPTION	ASSEMBLY INCLUDES
61	X-4041-474-1	BEZNET ASSY (KV-30XBR910 ONLY)	(62-70)	73	X-4042-199-1	ASSY, SPEAKER ARM (KV-30XBR910 ONLY)	(74)
61	X-4041-695-1	BEZNET ASSY (KV-34XBR910 ONLY)	(62-70)	73	X-4042-198-1	ASSY, SPEAKER ARM (KV-34XBR910 ONLY)	(74)
62	4-093-791-01	CABINET (KV-30XBR910 ONLY)		74	4-374-745-31	CUSHION (A)	
62	4-093-527-01	CABINET (KV-34XBR910 ONLY)		75	4-089-469-11	STANDOFF, HV	
63	4-093-611-01	BUTTON, MULTI		76	1-544-952-12	SPEAKER BOX (WOOFER)	(77-78)
64	3-704-179-31	EMBLEM (NO.9), SONY		* 77	4-083-309-01	BOX, SPEAKER (TOP)	
65	4-093-909-01	DAMPER, DOOR		* 78	4-083-310-01	BOX, SPEAKER (BOTTOM)	
66	4-094-029-01	LABEL, AV JACKS					
67	4-093-955-01	LABEL, BUTTON					
68	4-093-609-01	DOOR, CONTROL					
69	4-042-593-11	SPRING, COMPRESSION					
70	4-093-612-01	BUTTON, POWER					
71	4-093-613-01	PANEL, MS					
72	4-093-610-01	GUIDE, LED					

SECTION 7: ELECTRICAL PARTS LIST

NOTE: The components identified by shading and  mark are critical for safety. Replace only with part number specified.

NOTE: Les composants identifiés par un trame et une marque  sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

The components in this manual identified by the following symbol:  indicate parts that have been carefully factory-selected to satisfy regulations regarding X-ray radiation for each set.

Should replacement be required for one of these components, replace only with the value originally used.

* Items marked with an asterisk are not stocked since they are seldom required for routine service. Expect some delay when ordering these components.

RESISTORS

- All resistors are in ohms
- F : nonflammable
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.



When ordering parts by reference number, please include the board name.



Due to the complexity of this board, performing component level field repairs is not recommended. If service is required, complete board replacement is the preferred repair method.

Data is provided for reference only.

* **A-1300-324-A UD BOARD, COMPLETE**

CAPACITOR

C7001	1-126-395-11	ELECT CHIP	22μF	20%	16V
C7002	1-162-917-11	CERAMIC CHIP	15pF	5%	50V
C7004	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V
C7005	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V
C7006	1-124-779-00	ELECT CHIP	10μF	20%	16V
C7007	1-162-917-11	CERAMIC CHIP	15pF	5%	50V
C7008	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V
C7010	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V
C7011	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V
C7012	1-124-779-00	ELECT CHIP	10μF	20%	16V
C7013	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V
C7014	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V
C7015	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V
C7016	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V
C7017	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C7018	1-162-923-11	CERAMIC CHIP	47pF	5%	50V
C7019	1-162-923-11	CERAMIC CHIP	47pF	5%	50V
C7020	1-162-923-11	CERAMIC CHIP	47pF	5%	50V
C7021	1-124-779-00	ELECT CHIP	10μF	20%	16V
C7022	1-115-416-11	CERAMIC CHIP	0.001μF	5%	25V
C7023	1-162-927-11	CERAMIC CHIP	100pF	5%	50V
C7024	1-124-779-00	ELECT CHIP	10μF	20%	16V
C7025	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C7026	1-124-779-00	ELECT CHIP	10μF	20%	16V
C7027	1-164-156-11	CERAMIC CHIP	0.1μF		25V

C7028	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C7029	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C7030	1-162-927-11	CERAMIC CHIP	100pF	5%	50V
C7031	1-162-927-11	CERAMIC CHIP	100pF	5%	50V
C7032	1-162-927-11	CERAMIC CHIP	100pF	5%	50V
C7033	1-124-779-00	ELECT CHIP	10μF	20%	16V
C7034	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C7035	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C7036	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C7037	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C7038	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C7039	1-126-395-11	ELECT CHIP	22μF	20%	16V
C7040	1-162-921-11	CERAMIC CHIP	33pF	5%	50V
C7041	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C7042	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C7043	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C7044	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C7045	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C7046	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C7047	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C7048	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C7049	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C7050	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C7051	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C7052	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C7053	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C7056	1-126-395-11	ELECT CHIP	22μF	20%	16V
C7057	1-162-921-11	CERAMIC CHIP	33pF	5%	50V
C7058	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C7059	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C7060	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C7061	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C7062	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C7064	1-126-395-11	ELECT CHIP	22μF	20%	16V
C7065	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V



REF. NO.	PART NO.	DESCRIPTION	VALUES	REF. NO.	PART NO.	DESCRIPTION	VALUES
C7066	1-162-970-11	CERAMIC CHIP	0.01μF 10% 25V	IC7006	8-759-641-86	IC	BR24C16F-E2
C7067	1-162-970-11	CERAMIC CHIP	0.01μF 10% 25V	IC7007	6-702-170-01	IC	PACDN006S
C7068	1-162-970-11	CERAMIC CHIP	0.01μF 10% 25V	IC7008	6-702-170-01	IC	PACDN006S
C7069	1-162-970-11	CERAMIC CHIP	0.01μF 10% 25V	IC7009	6-702-170-01	IC	PACDN006S
C7070	1-164-156-11	CERAMIC CHIP	0.1μF 25V				
C7071	1-164-156-11	CERAMIC CHIP	0.1μF 25V		COIL		
C7078	1-164-156-11	CERAMIC CHIP	0.1μF 25V	L7001	1-412-058-11	INDUCTOR	10μH
C7079	1-164-156-11	CERAMIC CHIP	0.1μF 25V	L7002	1-412-058-11	INDUCTOR	10μH
C7080	1-164-156-11	CERAMIC CHIP	0.1μF 25V				
					RESISTOR		
	CONNECTOR			R7003	1-216-821-11	METAL CHIP	1K 5% 1/10W
* CN7001	1-816-228-21	CONNECTOR, DVI		R7004	1-218-852-11	METAL CHIP	1.6K 0.50% 1/10W
* CN7002	1-564-526-11	PLUG, CONNECTOR	11P	R7007	1-216-821-11	METAL CHIP	1K 5% 1/10W
* CN7004	1-564-519-11	PLUG, CONNECTOR	4P	R7012	1-216-821-11	METAL CHIP	1K 5% 1/10W
				R7013	1-216-821-11	METAL CHIP	1K 5% 1/10W
				R7014	1-216-821-11	METAL CHIP	1K 5% 1/10W
	DIODET			R7015	1-216-833-11	METAL CHIP	10K 5% 1/10W
D7001	8-719-914-43	DIODE	DAN202K	R7016	1-216-833-11	METAL CHIP	10K 5% 1/10W
D7002	8-719-069-55	DIODE	UDZSTE-175.6B	R7020	1-216-833-11	METAL CHIP	10K 5% 1/10W
D7003	8-719-069-55	DIODE	UDZSTE-175.6B	R7021	1-216-833-11	METAL CHIP	10K 5% 1/10W
D7004	8-719-069-55	DIODE	UDZSTE-175.6B				
D7006	8-719-069-55	DIODE	UDZSTE-175.6B	R7023	1-216-833-11	METAL CHIP	10K 5% 1/10W
				R7024	1-216-833-11	METAL CHIP	10K 5% 1/10W
	FERRITE BEAD			R7025	1-216-833-11	METAL CHIP	10K 5% 1/10W
FB7001	1-414-760-21	FERRITE	0μH	R7026	1-216-833-11	METAL CHIP	10K 5% 1/10W
FB7002	1-414-760-21	FERRITE	0μH	R7029	1-218-692-11	METAL CHIP	1K 0.50% 1/10W
FB7003	1-414-760-21	FERRITE	0μH				
FB7004	1-414-760-21	FERRITE	0μH	R7030	1-216-864-11	SHORT CHIP	
				R7032	1-218-676-11	METAL CHIP	220 0.50% 1/10W
	FILTER			R7034	1-218-676-11	METAL CHIP	220 0.50% 1/10W
FL7001	1-400-087-21	FILTER, EMI REMOVAL (SMD)		R7036	1-218-704-11	METAL CHIP	3.3K 0.50% 1/10W
FL7002	1-234-560-21	FILTER, LOW PASS		R7037	1-218-676-11	METAL CHIP	220 0.50% 1/10W
FL7003	1-234-559-21	FILTER, LOW PASS					
FL7004	1-234-559-21	FILTER, LOW PASS		R7041	1-216-833-11	METAL CHIP	10K 5% 1/10W
				R7043	1-216-829-11	METAL CHIP	4.7K 5% 1/10W
	IC			R7044	1-216-829-11	METAL CHIP	4.7K 5% 1/10W
IC7001	8-759-640-39	IC	BR24C02F-WE2	R7045	1-216-833-11	METAL CHIP	10K 5% 1/10W
IC7002	8-749-015-18	IC	PQ07VZ012ZP	R7047	1-216-833-11	METAL CHIP	10K 5% 1/10W
IC7003	8-749-015-18	IC	PQ07VZ012ZP				
IC7004	6-702-080-01	IC	GM7030-H	R7051	1-216-864-11	SHORT CHIP	
IC7005	6-802-346-01	IC	ST72631K4M1/NNLTR	R7053	1-216-833-11	METAL CHIP	10K 5% 1/10W
				R7054	1-216-833-11	METAL CHIP	10K 5% 1/10W
				R7056	1-216-833-11	METAL CHIP	10K 5% 1/10W
				R7057	1-216-864-11	SHORT CHIP	
				R7058	1-216-833-11	METAL CHIP	10K 5% 1/10W
				R7059	1-216-864-11	SHORT CHIP	

REF. NO.	PART NO.	DESCRIPTION	VALUES		
R7060	1-216-833-11	METAL CHIP	10K	5%	1/10W
R7061	1-216-833-11	METAL CHIP	10K	5%	1/10W
R7062	1-216-864-11	SHORT CHIP			
R7065	1-216-833-11	METAL CHIP	10K	5%	1/10W
R7066	1-218-694-11	METAL CHIP	1.2K	0.50%	1/10W
R7067	1-216-833-11	METAL CHIP	10K	5%	1/10W
R7068	1-216-801-11	METAL CHIP	22	5%	1/10W
R7069	1-216-801-11	METAL CHIP	22	5%	1/10W
R7071	1-216-803-11	METAL CHIP	33	5%	1/10W
R7072	1-216-803-11	METAL CHIP	33	5%	1/10W
R7075	1-218-676-11	METAL CHIP	220	0.50%	1/10W
R7080	1-218-704-11	METAL CHIP	3.3K	0.50%	1/10W
R7087	1-218-680-11	METAL CHIP	330	0.50%	1/10W
R7096	1-216-833-11	METAL CHIP	10K	5%	1/10W
R7097	1-216-809-11	METAL CHIP	100	5%	1/10W
R7098	1-216-809-11	METAL CHIP	100	5%	1/10W
R7099	1-216-809-11	METAL CHIP	100	5%	1/10W
R7101	1-216-864-11	SHORT CHIP			
R7106	1-216-833-11	METAL CHIP	10K	5%	1/10W
R7108	1-216-805-11	METAL CHIP	47	5%	1/10W
R7109	1-216-805-11	METAL CHIP	47	5%	1/10W
R7111	1-216-864-11	SHORT CHIP			
R7112	1-216-864-11	SHORT CHIP			
R7113	1-216-864-11	SHORT CHIP			
R7114	1-218-700-11	METAL CHIP	2.2K	0.50%	1/10W
R7115	1-218-700-11	METAL CHIP	2.2K	0.50%	1/10W
R7116	1-218-700-11	METAL CHIP	2.2K	0.50%	1/10W
R7117	1-218-668-11	METAL CHIP	100	0.50%	1/10W
R7119	1-218-668-11	METAL CHIP	100	0.50%	1/10W
R7121	1-216-864-11	SHORT CHIP			
R7123	1-218-704-11	METAL CHIP	3.3K	0.50%	1/10W
R7124	1-218-680-11	METAL CHIP	330	0.50%	1/10W
R7125	1-218-700-11	METAL CHIP	2.2K	0.50%	1/10W
R7126	1-216-864-11	SHORT CHIP			
CRYSTAL					
X7001	1-795-568-21	VIBRATOR, CRYSTAL			
X7002	1-795-567-21	VIBRATOR, CRYSTAL			

REF. NO.	PART NO.	DESCRIPTION	VALUES		
<div><div>B</div><div><p>Due to the complexity of this board, performing component level field repairs is not recommended. If service is required, complete board replacement is the preferred repair method.</p><p>Data is provided for reference only.</p></div></div>					
*	A-1300-327-A	B BOARD, COMPLETE			
CAPACITOR					
C2801	1-117-681-11	ELECT CHIP	100μF	20%	16V
C2802	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C2804	1-162-923-11	CERAMIC CHIP	47pF	5%	50V
C2805	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V
C2806	1-125-891-11	CERAMIC CHIP	0.47μF	10%	10V
C2808	1-126-398-11	ELECT CHIP	4.7μF	20%	35V
C2809	1-117-681-11	ELECT CHIP	100μF	20%	16V
C2810	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V
C2811	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C2812	1-125-891-11	CERAMIC CHIP	0.47μF	10%	10V
C2813	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V
C2814	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V
C2815	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V
C2816	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V
C2817	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V
C2818	1-162-964-11	CERAMIC CHIP	0.001μF	10%	50V
C2819	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V
C2820	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V
C2821	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V
C2822	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V
C2823	1-117-681-11	ELECT CHIP	100μF	20%	16V
C2824	1-117-681-11	ELECT CHIP	100μF	20%	16V
C2825	1-162-964-11	CERAMIC CHIP	0.001μF	10%	50V
C2826	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C2827	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C2828	1-110-563-11	CERAMIC CHIP	0.068μF	10%	16V
C2829	1-162-968-11	CERAMIC CHIP	0.0047μF	10%	50V



REF. NO.	PART NO.	DESCRIPTION	VALUES			REF. NO.	PART NO.	DESCRIPTION	VALUES		
C2841	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V	C3046	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V
C2842	1-117-681-11	ELECT CHIP	100μF	20%	16V	C3047	1-126-204-11	ELECT CHIP	47μF	20%	16V
C2843	1-164-156-11	CERAMIC CHIP	0.1μF		25V	C3048	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V
C2844	1-117-681-11	ELECT CHIP	100μF	20%	16V	C3049	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V
C2845	1-117-681-11	ELECT CHIP	100μF	20%	16V	C3089	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V
C2846	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V	C3090	1-126-204-11	ELECT CHIP	47μF	20%	16V
C2847	1-127-715-91	CERAMIC CHIP	0.22μF	10%	16V	C3095	1-128-359-11	ELECT CHIP	100μF	20%	10V
C2849	1-162-966-11	CERAMIC CHIP	0.0022μF	10%	50V	C3096	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V
C2850	1-117-681-11	ELECT CHIP	100μF	20%	16V	C3097	1-128-359-11	ELECT CHIP	100μF	20%	10V
C2851	1-164-156-11	CERAMIC CHIP	0.1μF		25V	C3098	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V
C3005	1-126-204-11	ELECT CHIP	47μF	20%	16V	C3101	1-162-925-11	CERAMIC CHIP	68pF	5%	50V
C3006	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V	C3102	1-162-925-11	CERAMIC CHIP	68pF	5%	50V
C3008	1-126-396-11	ELECT CHIP	47μF	20%	16V	C3103	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V
C3009	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V	C3301	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C3011	1-164-156-11	CERAMIC CHIP	0.1μF		25V	C3302	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C3012	1-164-156-11	CERAMIC CHIP	0.1μF		25V	C3303	1-126-206-11	ELECT CHIP	100μF	20%	6.3V
C3013	1-128-391-11	ELECT CHIP	330μF	20%	6.3V	C3304	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C3014	1-128-391-11	ELECT CHIP	330μF	20%	6.3V	C3305	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C3015	1-164-156-11	CERAMIC CHIP	0.1μF		25V	C3307	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C3016	1-164-156-11	CERAMIC CHIP	0.1μF		25V	C3308	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C3017	1-125-837-91	CERAMIC CHIP	1μF	10%	6.3V	C3309	1-126-206-11	ELECT CHIP	100μF	20%	6.3V
C3018	1-164-156-11	CERAMIC CHIP	0.1μF		25V	C3313	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C3019	1-164-156-11	CERAMIC CHIP	0.1μF		25V	C3314	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C3020	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V	C3315	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C3021	1-164-156-11	CERAMIC CHIP	0.1μF		25V	C3316	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C3023	1-125-837-91	CERAMIC CHIP	1μF	10%	6.3V	C3317	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C3024	1-125-837-91	CERAMIC CHIP	1μF	10%	6.3V	C3318	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C3025	1-164-156-11	CERAMIC CHIP	0.1μF		25V	C3319	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C3026	1-164-156-11	CERAMIC CHIP	0.1μF		25V	C3325	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C3027	1-164-156-11	CERAMIC CHIP	0.1μF		25V	C3326	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C3028	1-164-156-11	CERAMIC CHIP	0.1μF		25V	C3329	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V
C3029	1-164-156-11	CERAMIC CHIP	0.1μF		25V	C3333	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C3030	1-164-156-11	CERAMIC CHIP	0.1μF		25V	C3334	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V
C3031	1-164-156-11	CERAMIC CHIP	0.1μF		25V	C3335	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C3032	1-164-156-11	CERAMIC CHIP	0.1μF		25V	C3337	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V
C3033	1-109-982-11	CERAMIC CHIP	1μF	10%	10V	C3341	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C3034	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V	C3343	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C3035	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V	C3349	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C3036	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V	C3350	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C3037	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V	C3351	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C3038	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V	C3357	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C3040	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V	C3358	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C3042	1-100-202-21	ELECT CHIP	330μF	20%	6.3V	C3359	1-126-396-11	ELECT CHIP	47μF	20%	16V
C3044	1-164-156-11	CERAMIC CHIP	0.1μF		25V	C3360	1-164-156-11	CERAMIC CHIP	0.1μF		25V



REF. NO.	PART NO.	DESCRIPTION	VALUES			REF. NO.	PART NO.	DESCRIPTION	VALUES		
C3363	1-126-396-11	ELECT CHIP	47μF	20%	16V	C3449	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V
C3364	1-164-156-11	CERAMIC CHIP	0.1μF		25V	C3450	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C3365	1-164-156-11	CERAMIC CHIP	0.1μF		25V	C3452	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C3366	1-164-156-11	CERAMIC CHIP	0.1μF		25V	C3460	1-162-923-11	CERAMIC CHIP	47pF	5%	50V
C3367	1-164-156-11	CERAMIC CHIP	0.1μF		25V	C3462	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C3368	1-164-156-11	CERAMIC CHIP	0.1μF		25V	C3463	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C3369	1-164-156-11	CERAMIC CHIP	0.1μF		25V	C3464	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C3370	1-164-156-11	CERAMIC CHIP	0.1μF		25V	C3465	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C3371	1-164-156-11	CERAMIC CHIP	0.1μF		25V	C3466	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C3372	1-164-156-11	CERAMIC CHIP	0.1μF		25V	C3467	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C3374	1-164-156-11	CERAMIC CHIP	0.1μF		25V	C3468	1-126-206-11	ELECT CHIP	100μF	20%	6.3V
C3375	1-127-760-11	CERAMIC CHIP	4.7μF	10%	6.3V	C3469	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C3376	1-164-156-11	CERAMIC CHIP	0.1μF		25V	C3470	1-126-206-11	ELECT CHIP	100μF	20%	6.3V
C3377	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V	C3473	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C3378	1-126-396-11	ELECT CHIP	47μF	20%	16V	C3474	1-124-779-00	ELECT CHIP	10μF	20%	16V
C3379	1-164-156-11	CERAMIC CHIP	0.1μF		25V	C3475	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C3401	1-164-156-11	CERAMIC CHIP	0.1μF		25V	C3476	1-126-394-11	ELECT CHIP	10μF	20%	16V
C3402	1-124-779-00	ELECT CHIP	10μF	20%	16V	C3477	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C3403	1-164-156-11	CERAMIC CHIP	0.1μF		25V	C3478	1-126-396-11	ELECT CHIP	47μF	20%	16V
C3404	1-126-392-11	ELECT CHIP	100μF	20%	6.3V	C3479	1-126-394-11	ELECT CHIP	10μF	20%	16V
C3405	1-126-392-11	ELECT CHIP	100μF	20%	6.3V	C3480	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C3406	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V	C3481	1-117-681-11	ELECT CHIP	100μF	20%	16V
C3407	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V	C3482	1-117-681-11	ELECT CHIP	100μF	20%	16V
C3408	1-126-392-11	ELECT CHIP	100μF	20%	6.3V	C3483	1-117-681-11	ELECT CHIP	100μF	20%	16V
C3409	1-164-156-11	CERAMIC CHIP	0.1μF		25V	C3484	1-125-837-91	CERAMIC CHIP	1μF	10%	6.3V
C3410	1-164-156-11	CERAMIC CHIP	0.1μF		25V	C3485	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C3411	1-164-156-11	CERAMIC CHIP	0.1μF		25V	C3486	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C3412	1-164-156-11	CERAMIC CHIP	0.1μF		25V	C3487	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C3413	1-164-156-11	CERAMIC CHIP	0.1μF		25V	C3488	1-126-394-11	ELECT CHIP	10μF	20%	16V
C3414	1-164-156-11	CERAMIC CHIP	0.1μF		25V	C3489	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C3417	1-164-156-11	CERAMIC CHIP	0.1μF		25V	C3490	1-124-779-00	ELECT CHIP	10μF	20%	16V
C3418	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V	C3491	1-126-396-11	ELECT CHIP	47μF	20%	16V
C3424	1-164-156-11	CERAMIC CHIP	0.1μF		25V	C3492	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C3426	1-164-156-11	CERAMIC CHIP	0.1μF		25V	C3493	1-126-396-11	ELECT CHIP	47μF	20%	16V
C3428	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V	C3494	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C3431	1-126-396-11	ELECT CHIP	47μF	20%	16V	C3495	1-124-779-00	ELECT CHIP	10μF	20%	16V
C3435	1-164-156-11	CERAMIC CHIP	0.1μF		25V	C3496	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C3436	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V	C3499	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V
C3439	1-164-156-11	CERAMIC CHIP	0.1μF		25V	C3500	1-126-392-11	ELECT CHIP	100μF	20%	6.3V
C3440	1-162-916-11	CERAMIC CHIP	12pF	5%	50V	C3501	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C3441	1-162-916-11	CERAMIC CHIP	12pF	5%	50V	C3601	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C3442	1-126-394-11	ELECT CHIP	10μF	20%	16V	C3602	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C3444	1-164-156-11	CERAMIC CHIP	0.1μF		25V	C3604	1-126-394-11	ELECT CHIP	10μF	20%	16V
C3446	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V	C3605	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V



REF. NO.	PART NO.	DESCRIPTION	VALUES	REF. NO.	PART NO.	DESCRIPTION	VALUES
D3402	8-719-914-44	DIODE	DAP202K	IC3090	6-801-376-01	IC	MB94918RpF-G-147-BND
D3403	8-719-978-33	DIODE	DTZ-TT11-6.8B	IC3091	8-759-352-91	IC	PST9143NL
D3404	8-719-404-50	DIODE	MA111-TX	IC3301	8-759-663-74	IC	HY57V161610DTC-7TR
D3601	8-719-800-76	DIODE	1SS226	IC3302	6-700-398-01	IC	UPC2918T-E1
D3603	8-719-083-58	DIODE	UDZSTE-173.9B	IC3303	8-752-410-57	IC	CXD2097Q
FERRITE BEAD				IC3306	8-759-669-78	IC	TLC2933IPWR-12
FB3001	1-500-451-11	FERRITE	0μH	IC3401	6-700-399-01	IC	UPC2925T-E1
FB3002	1-216-864-11	SHORT CHIP		IC3402	8-759-677-37	IC	MT48LC2M32B2TG-7
FB3301	1-414-235-22	FERRITE	0μH	IC3403	8-759-460-29	IC	PST9120NL
FB3302	1-414-235-22	FERRITE	0μH	IC3408	8-759-672-57	IC	CXD9509AQ
FB3303	1-216-809-11	METAL CHIP	100 5% 1/10W	IC3409	8-759-833-72	IC	NJM2870F25-TE2
FB3304	1-469-110-21	FERRITE	0μH	IC3410	8-752-409-20	IC	CXD2309AQ
FB3401	1-414-235-22	FERRITE	0μH	IC3411	8-759-082-57	IC	TC7W04FU
FB3402	1-414-235-22	FERRITE	0μH	IC3413	8-759-549-07	IC	SN74LV157APWR
FB3403	1-216-864-11	SHORT CHIP		IC3414	8-759-548-56	IC	M52055FP
FB3601	1-414-228-11	FERRITE	0μH	IC3601	8-759-592-50	IC	TC7SZ126FU(TE85R)
FB3602	1-414-228-11	FERRITE	0μH	IC3602	8-759-592-49	IC	TC7SZ125FU(TE85R)
FB3608	1-469-568-21	FERRITE	0μH	IC3603	8-759-639-85	IC	SN65LVDS31DR
FB3609	1-414-921-11	FERRITE	0μH	IC3604	6-701-762-11	IC	DS90LV018ATMX
FB3610	1-414-921-11	FERRITE	0μH	IC3605	8-759-698-08	IC	SN74CBTLV1G125DCKR
FB3611	1-414-921-11	FERRITE	0μH	IC3606	8-759-641-26	IC	NJM2391DL1-33(TE1)
FB3612	1-414-921-11	FERRITE	0μH	IC3608	8-759-669-75	IC	TLC2932IPWR
FILTER				IC3609	8-759-828-44	IC	NJM2870F33(TE2)
FL3001	1-234-177-21	FERRITE	0μH	IC8601	8-752-093-03	IC	CXA3506R
FL3002	1-234-177-21	FERRITE	0μH	COIL			
FL3301	1-234-558-21	FILTER, LOW PASS		L2801	1-469-555-21	INDUCTOR	10μH
FL3302	1-234-557-21	FILTER, LOW PASS		L2803	1-469-555-21	INDUCTOR	10μH
FL3303	1-234-557-21	FILTER, LOW PASS		L2804	1-469-555-21	INDUCTOR	10μH
FL3401	1-781-923-21	FILTER, LOW PASS (SMD)		L2805	1-469-555-21	INDUCTOR	10μH
FL8601	1-234-559-21	FILTER, LOW PASS		L2806	1-469-555-21	INDUCTOR	10μH
FL8602	1-234-559-21	FILTER, LOW PASS		L2807	1-469-555-21	INDUCTOR	10μH
FL8603	1-234-560-21	FILTER, LOW PASS		L2811	1-469-555-21	INDUCTOR	10μH
IC				L3001	1-216-295-91	SHORT CHIP	
IC2801	8-752-102-68	IC	CXA2170Q	L3004	1-412-026-11	INDUCTOR	1μH
IC3002	8-759-583-47	IC	UPC2933T-E2	L3005	1-412-026-11	INDUCTOR	1μH
IC3003	6-701-892-01	IC	TC90A90F(BH,DRY)	L3007	1-469-555-21	INDUCTOR	10μH
IC3004	8-759-642-22	IC	UPC29M05T-E2	L3009	1-469-555-21	INDUCTOR	10μH
IC3089	6-704-573-01	IC	M24C32-WMN6T(B)	L3010	1-469-555-21	INDUCTOR	10μH
				L3011	1-469-555-21	INDUCTOR	10μH
				L3089	1-414-233-22	FERRITE	0μH



REF. NO.	PART NO.	DESCRIPTION	VALUES	REF. NO.	PART NO.	DESCRIPTION	VALUES
L3102	1-469-552-21	INDUCTOR	3.3μH	Q3008	8-729-422-27	TRANSISTOR	2SD601A-Q
L3304	1-469-555-21	INDUCTOR	10μH	Q3009	8-729-422-27	TRANSISTOR	2SD601A-Q
L3310	1-469-561-21	INDUCTOR	100μH	Q3089	8-729-424-02	TRANSISTOR	2SB709A-QRS-TX
L3311	1-469-561-21	INDUCTOR	100μH	Q3090	8-729-424-02	TRANSISTOR	2SB709A-QRS-TX
L3402	1-412-052-21	INDUCTOR	1μH	Q3092	8-729-422-27	TRANSISTOR	2SD601A-Q
L3405	1-469-555-21	INDUCTOR	10μH	Q3093	8-729-422-27	TRANSISTOR	2SD601A-Q
L3406	1-469-555-21	INDUCTOR	10μH	Q3302	8-729-422-27	TRANSISTOR	2SD601A-Q
L3407	1-469-555-21	INDUCTOR	10μH	Q3303	8-729-422-27	TRANSISTOR	2SD601A-Q
L3411	1-412-058-11	INDUCTOR	10μH	Q3305	8-729-424-02	TRANSISTOR	2SB709A-QRS-TX
L3412	1-469-555-21	INDUCTOR	10μH	Q3306	8-729-424-02	TRANSISTOR	2SB709A-QRS-TX
L3413	1-469-555-21	INDUCTOR	10μH	Q3307	8-729-422-27	TRANSISTOR	2SD601A-Q
L3414	1-469-555-21	INDUCTOR	10μH	Q3308	8-729-424-02	TRANSISTOR	2SB709A-QRS-TX
L3416	1-469-555-21	INDUCTOR	10μH	Q3309	8-729-422-27	TRANSISTOR	2SD601A-Q
L3418	1-469-555-21	INDUCTOR	10μH	Q3310	8-729-424-02	TRANSISTOR	2SB709A-QRS-TX
L3601	1-419-370-21	INDUCTOR	0μH	Q3311	8-729-422-27	TRANSISTOR	2SD601A-Q
L3602	1-419-370-21	INDUCTOR	0μH	Q3401	8-729-422-27	TRANSISTOR	2SD601A-Q
L3603	1-419-370-21	INDUCTOR	0μH	Q3402	8-729-028-28	TRANSISTOR	2SK2036(TE85L)
L3604	1-419-370-21	INDUCTOR	0μH	Q3404	8-729-028-28	TRANSISTOR	2SK2036(TE85L)
L3605	1-419-370-21	INDUCTOR	0μH	Q3410	8-729-424-02	TRANSISTOR	2SB709A-QRS-TX
L3903	1-412-052-21	INDUCTOR	1μH	Q3411	8-729-424-02	TRANSISTOR	2SB709A-QRS-TX
L8601	1-469-555-21	INDUCTOR	10μH	Q3412	8-729-424-02	TRANSISTOR	2SB709A-QRS-TX
L8602	1-469-553-21	INDUCTOR	4.7μH	Q3413	8-729-424-02	TRANSISTOR	2SB709A-QRS-TX
L8603	1-469-555-21	INDUCTOR	10μH	Q3414	8-729-424-02	TRANSISTOR	2SB709A-QRS-TX
L8604	1-469-555-21	INDUCTOR	10μH	Q3415	8-729-424-02	TRANSISTOR	2SB709A-QRS-TX
	TRANSISTOR			Q3416	8-729-422-27	TRANSISTOR	2SD601A-Q
Q2801	8-729-122-63	TRANSISTOR	2SA1226-E4	Q3601	8-729-422-27	TRANSISTOR	2SD601A-Q
Q2802	8-729-424-02	TRANSISTOR	2SB709A-QRS-TX	Q3906	8-729-028-28	TRANSISTOR	2SK2036(TE85L)
Q2803	8-729-424-02	TRANSISTOR	2SB709A-QRS-TX	Q3907	8-729-028-28	TRANSISTOR	2SK2036(TE85L)
Q2804	8-729-422-27	TRANSISTOR	2SD601A-Q	Q8601	8-729-102-07	TRANSISTOR	2SC2223-F13
Q2805	8-729-424-02	TRANSISTOR	2SB709A-QRS-TX	Q8602	8-729-102-07	TRANSISTOR	2SC2223-F13
Q2806	8-729-422-27	TRANSISTOR	2SD601A-Q	Q8603	8-729-102-07	TRANSISTOR	2SC2223-F13
Q2807	8-729-422-27	TRANSISTOR	2SD601A-Q	Q8604	8-729-424-02	TRANSISTOR	2SB709A-QRS-TX
Q2811	8-729-122-63	TRANSISTOR	2SA1226-E4	Q8605	8-729-424-02	TRANSISTOR	2SB709A-QRS-TX
Q2812	8-729-122-63	TRANSISTOR	2SA1226-E4	Q8606	8-729-122-63	TRANSISTOR	2SA1226-E4
Q2813	8-729-122-63	TRANSISTOR	2SA1226-E4	Q8607	8-729-122-63	TRANSISTOR	2SA1226-E4
Q2818	8-729-422-27	TRANSISTOR	2SD601A-Q	Q8608	8-729-122-63	TRANSISTOR	2SA1226-E4
Q2822	8-729-422-27	TRANSISTOR	2SD601A-Q	Q8609	8-729-424-02	TRANSISTOR	2SB709A-QRS-TX
Q2823	8-729-422-27	TRANSISTOR	2SD601A-Q				
Q3003	8-729-422-27	TRANSISTOR	2SD601A-Q		RESISTOR		
Q3005	8-729-422-27	TRANSISTOR	2SD601A-Q	R2801	1-218-867-11	METAL CHIP	6.8K 0.50% 1/10W
Q3006	8-729-422-27	TRANSISTOR	2SD601A-Q	R2803	1-216-829-11	METAL CHIP	4.7K 5% 1/10W
Q3007	8-729-422-27	TRANSISTOR	2SD601A-Q	R2804	1-216-805-11	METAL CHIP	47 5% 1/10W
				R2805	1-216-823-11	METAL CHIP	1.5K 5% 1/10W



REF. NO.	PART NO.	DESCRIPTION	VALUES			REF. NO.	PART NO.	DESCRIPTION	VALUES		
R2806	1-216-863-11	METAL CHIP	3.3M	5%	1/10W	R2854	1-216-864-11	SHORT CHIP			
R2807	1-216-809-11	METAL CHIP	100	5%	1/10W	R2858	1-218-716-11	METAL CHIP	10K	0.50%	1/10W
R2808	1-216-834-11	METAL CHIP	12K	5%	1/10W	R2860	1-216-833-11	METAL CHIP	10K	5%	1/10W
R2809	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	R2861	1-216-833-11	METAL CHIP	10K	5%	1/10W
R2810	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	R2862	1-216-809-11	METAL CHIP	100	5%	1/10W
R2811	1-216-809-11	METAL CHIP	100	5%	1/10W	R2865	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R2812	1-218-708-11	METAL CHIP	4.7K	0.50%	1/10W	R2866	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R2813	1-216-833-11	METAL CHIP	10K	5%	1/10W	R2867	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R2815	1-216-833-11	METAL CHIP	10K	5%	1/10W	R2868	1-216-809-11	METAL CHIP	100	5%	1/10W
R2816	1-216-845-11	METAL CHIP	100K	5%	1/10W	R2869	1-216-809-11	METAL CHIP	100	5%	1/10W
R2817	1-216-809-11	METAL CHIP	100	5%	1/10W	R2870	1-216-809-11	METAL CHIP	100	5%	1/10W
R2818	1-216-809-11	METAL CHIP	100	5%	1/10W	R2880	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R2819	1-216-809-11	METAL CHIP	100	5%	1/10W	R2881	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R2820	1-216-809-11	METAL CHIP	100	5%	1/10W	R2883	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R2821	1-216-809-11	METAL CHIP	100	5%	1/10W	R2884	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R2823	1-216-841-11	METAL CHIP	47K	5%	1/10W	R2885	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R2824	1-216-809-11	METAL CHIP	100	5%	1/10W	R2886	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R2825	1-216-841-11	METAL CHIP	47K	5%	1/10W	R2887	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R2826	1-218-716-11	METAL CHIP	10K	0.50%	1/10W	R2889	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R2827	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	R2890	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R2828	1-216-832-11	METAL CHIP	8.2K	5%	1/10W	R2891	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R2829	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	R2892	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R2830	1-216-818-11	METAL CHIP	560	5%	1/10W	R2893	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R2831	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	R2894	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R2832	1-216-809-11	METAL CHIP	100	5%	1/10W	R2895	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R2833	1-216-809-11	METAL CHIP	100	5%	1/10W	R2896	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R2834	1-216-809-11	METAL CHIP	100	5%	1/10W	R2897	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R2835	1-216-809-11	METAL CHIP	100	5%	1/10W	R2898	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R2836	1-216-809-11	METAL CHIP	100	5%	1/10W	R2899	1-218-724-11	METAL CHIP	22K	0.50%	1/10W
R2837	1-216-809-11	METAL CHIP	100	5%	1/10W	R2900	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R2838	1-216-809-11	METAL CHIP	100	5%	1/10W	R2901	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R2839	1-216-809-11	METAL CHIP	100	5%	1/10W	R2902	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R2840	1-216-809-11	METAL CHIP	100	5%	1/10W	R2907	1-218-660-91	METAL CHIP	47	0.50%	1/10W
R2841	1-216-809-11	METAL CHIP	100	5%	1/10W	R2908	1-218-660-91	METAL CHIP	47	0.50%	1/10W
R2842	1-216-809-11	METAL CHIP	100	5%	1/10W	R2909	1-218-660-91	METAL CHIP	47	0.50%	1/10W
R2843	1-216-809-11	METAL CHIP	100	5%	1/10W	R2911	1-216-864-11	SHORT CHIP			
R2844	1-216-826-11	METAL CHIP	2.7K	5%	1/10W	R2913	1-216-864-11	SHORT CHIP			
R2845	1-216-809-11	METAL CHIP	100	5%	1/10W	R2919	1-218-724-11	METAL CHIP	22K	0.50%	1/10W
R2846	1-216-827-11	METAL CHIP	3.3K	5%	1/10W	R2920	1-216-864-11	SHORT CHIP			
R2847	1-216-809-11	METAL CHIP	100	5%	1/10W	R2921	1-216-864-11	SHORT CHIP			
R2848	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	R2922	1-216-864-11	SHORT CHIP			
R2849	1-216-833-11	METAL CHIP	10K	5%	1/10W	R3002	1-216-864-11	SHORT CHIP			
R2850	1-216-809-11	METAL CHIP	100	5%	1/10W	R3004	1-216-864-11	SHORT CHIP			
R2851	1-216-815-11	METAL CHIP	330	5%	1/10W	R3013	1-216-809-11	METAL CHIP	100	5%	1/10W



REF. NO.	PART NO.	DESCRIPTION	VALUES			REF. NO.	PART NO.	DESCRIPTION	VALUES		
R3014	1-216-809-11	METAL CHIP	100	5%	1/10W	R3096	1-216-817-11	METAL CHIP	470	5%	1/10W
R3015	1-216-809-11	METAL CHIP	100	5%	1/10W	R3097	1-216-845-11	METAL CHIP	100K	5%	1/10W
R3017	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	R3098	1-216-805-11	METAL CHIP	47	5%	1/10W
R3020	1-216-827-11	METAL CHIP	3.3K	5%	1/10W	R3099	1-216-805-11	METAL CHIP	47	5%	1/10W
R3021	1-216-809-11	METAL CHIP	100	5%	1/10W	R3102	1-216-809-11	METAL CHIP	100	5%	1/10W
R3022	1-216-809-11	METAL CHIP	100	5%	1/10W	R3103	1-216-809-11	METAL CHIP	100	5%	1/10W
R3023	1-216-833-11	METAL CHIP	10K	5%	1/10W	R3104	1-216-809-11	METAL CHIP	100	5%	1/10W
R3025	1-216-833-11	METAL CHIP	10K	5%	1/10W	R3105	1-216-809-11	METAL CHIP	100	5%	1/10W
R3026	1-216-833-11	METAL CHIP	10K	5%	1/10W	R3107	1-216-864-11	SHORT CHIP			
R3029	1-216-833-11	METAL CHIP	10K	5%	1/10W	R3108	1-216-833-11	METAL CHIP	10K	5%	1/10W
R3030	1-216-827-11	METAL CHIP	3.3K	5%	1/10W	R3110	1-216-809-11	METAL CHIP	100	5%	1/10W
R3031	1-216-809-11	METAL CHIP	100	5%	1/10W	R3111	1-216-809-11	METAL CHIP	100	5%	1/10W
R3035	1-216-809-11	METAL CHIP	100	5%	1/10W	R3116	1-216-797-11	METAL CHIP	10	5%	1/10W
R3036	1-216-809-11	METAL CHIP	100	5%	1/10W	R3117	1-216-797-11	METAL CHIP	10	5%	1/10W
R3037	1-216-809-11	METAL CHIP	100	5%	1/10W	R3150	1-216-864-11	SHORT CHIP			
R3038	1-218-686-11	METAL CHIP	560	0.50%	1/10W	R3302	1-216-817-11	METAL CHIP	470	5%	1/10W
R3039	1-218-686-11	METAL CHIP	560	0.50%	1/10W	R3303	1-218-710-11	METAL CHIP	5.6K	0.50%	1/10W
R3040	1-218-686-11	METAL CHIP	560	0.50%	1/10W	R3304	1-216-809-11	METAL CHIP	100	5%	1/10W
R3043	1-216-864-11	SHORT CHIP				R3325	1-216-864-11	SHORT CHIP			
R3045	1-216-809-11	METAL CHIP	100	5%	1/10W	R3335	1-216-833-11	METAL CHIP	10K	5%	1/10W
R3047	1-216-864-11	SHORT CHIP				R3341	1-216-813-11	METAL CHIP	220	5%	1/10W
R3049	1-216-859-11	METAL CHIP	1.5M	5%	1/10W	R3342	1-218-705-11	METAL CHIP	3.6K	0.50%	1/10W
R3050	1-216-833-11	METAL CHIP	10K	5%	1/10W	R3343	1-216-809-11	METAL CHIP	100	5%	1/10W
R3051	1-216-864-11	SHORT CHIP				R3344	1-216-853-11	METAL CHIP	470K	5%	1/10W
R3063	1-216-864-11	SHORT CHIP				R3345	1-218-704-11	METAL CHIP	3.3K	0.50%	1/10W
R3064	1-216-864-11	SHORT CHIP				R3346	1-216-809-11	METAL CHIP	100	5%	1/10W
R3066	1-216-809-11	METAL CHIP	100	5%	1/10W	R3347	1-216-815-11	METAL CHIP	330	5%	1/10W
R3068	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	R3348	1-216-864-11	SHORT CHIP			
R3069	1-216-820-11	METAL CHIP	820	5%	1/10W	R3349	1-218-687-11	METAL CHIP	620	0.50%	1/10W
R3070	1-216-864-11	SHORT CHIP				R3350	1-216-814-11	METAL CHIP	270	5%	1/10W
R3071	1-216-821-11	METAL CHIP	1K	5%	1/10W	R3351	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R3072	1-216-855-11	METAL CHIP	680K	5%	1/10W	R3352	1-216-853-11	METAL CHIP	470K	5%	1/10W
R3073	1-216-855-11	METAL CHIP	680K	5%	1/10W	R3353	1-216-837-11	METAL CHIP	22K	5%	1/10W
R3074	1-218-704-11	METAL CHIP	3.3K	0.50%	1/10W	R3354	1-216-813-11	METAL CHIP	220	5%	1/10W
R3075	1-216-801-11	METAL CHIP	22	5%	1/10W	R3355	1-216-821-11	METAL CHIP	1K	5%	1/10W
R3076	1-216-864-11	SHORT CHIP				R3357	1-218-676-11	METAL CHIP	220	0.50%	1/10W
R3077	1-216-841-11	METAL CHIP	47K	5%	1/10W	R3358	1-218-676-11	METAL CHIP	220	0.50%	1/10W
R3078	1-216-815-11	METAL CHIP	330	5%	1/10W	R3359	1-218-676-11	METAL CHIP	220	0.50%	1/10W
R3079	1-216-815-11	METAL CHIP	330	5%	1/10W	R3360	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R3089	1-216-864-11	SHORT CHIP				R3365	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R3091	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	R3367	1-216-805-11	METAL CHIP	47	5%	1/10W
R3092	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	R3368	1-216-864-11	SHORT CHIP			
R3093	1-216-864-11	SHORT CHIP				R3370	1-216-833-11	METAL CHIP	10K	5%	1/10W
R3095	1-216-845-11	METAL CHIP	100K	5%	1/10W	R3371	1-218-686-11	METAL CHIP	560	0.50%	1/10W



REF. NO.	PART NO.	DESCRIPTION	VALUES			REF. NO.	PART NO.	DESCRIPTION	VALUES		
R3372	1-216-817-11	METAL CHIP	470	5%	1/10W	R3475	1-216-809-11	METAL CHIP	100	5%	1/10W
R3373	1-216-817-11	METAL CHIP	470	5%	1/10W	R3480	1-216-809-11	METAL CHIP	100	5%	1/10W
R3374	1-216-809-11	METAL CHIP	100	5%	1/10W	R3489	1-216-864-11	SHORT CHIP			
R3375	1-218-686-11	METAL CHIP	560	0.50%	1/10W	R3490	1-216-864-11	SHORT CHIP			
R3376	1-218-710-11	METAL CHIP	5.6K	0.50%	1/10W	R3494	1-216-813-11	METAL CHIP	220	5%	1/10W
R3377	1-216-817-11	METAL CHIP	470	5%	1/10W	R3497	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R3378	1-216-817-11	METAL CHIP	470	5%	1/10W	R3498	1-216-818-11	METAL CHIP	560	5%	1/10W
R3379	1-216-809-11	METAL CHIP	100	5%	1/10W	R3507	1-216-821-11	METAL CHIP	1K	5%	1/10W
R3380	1-218-686-11	METAL CHIP	560	0.50%	1/10W	R3508	1-216-821-11	METAL CHIP	1K	5%	1/10W
R3381	1-218-710-11	METAL CHIP	5.6K	0.50%	1/10W	R3509	1-216-821-11	METAL CHIP	1K	5%	1/10W
R3383	1-216-817-11	METAL CHIP	470	5%	1/10W	R3510	1-216-821-11	METAL CHIP	1K	5%	1/10W
R3395	1-216-864-11	SHORT CHIP				R3511	1-216-821-11	METAL CHIP	1K	5%	1/10W
R3396	1-216-864-11	SHORT CHIP				R3512	1-216-821-11	METAL CHIP	1K	5%	1/10W
R3400	1-216-864-11	SHORT CHIP				R3533	1-216-809-11	METAL CHIP	100	5%	1/10W
R3401	1-216-864-11	SHORT CHIP				R3534	1-216-809-11	METAL CHIP	100	5%	1/10W
R3406	1-216-833-11	METAL CHIP	10K	5%	1/10W	R3535	1-216-809-11	METAL CHIP	100	5%	1/10W
R3407	1-216-864-11	SHORT CHIP				R3536	1-216-833-11	METAL CHIP	10K	5%	1/10W
R3409	1-216-864-11	SHORT CHIP				R3537	1-216-833-11	METAL CHIP	10K	5%	1/10W
R3410	1-216-833-11	METAL CHIP	10K	5%	1/10W	R3538	1-216-864-11	SHORT CHIP			
R3411	1-216-797-11	METAL CHIP	10	5%	1/10W	R3539	1-216-864-11	SHORT CHIP			
R3421	1-216-864-11	SHORT CHIP				R3540	1-216-864-11	SHORT CHIP			
R3422	1-216-864-11	SHORT CHIP				R3541	1-216-864-11	SHORT CHIP			
R3425	1-218-704-11	METAL CHIP	3.3K	0.50%	1/10W	R3542	1-216-864-11	SHORT CHIP			
R3428	1-469-094-21	FERRITE	0μH			R3575	1-216-864-11	SHORT CHIP			
R3435	1-216-809-11	METAL CHIP	100	5%	1/10W	R3601	1-216-864-11	SHORT CHIP			
R3436	1-216-809-11	METAL CHIP	100	5%	1/10W	R3602	1-216-864-11	SHORT CHIP			
R3437	1-216-809-11	METAL CHIP	100	5%	1/10W	R3603	1-216-864-11	SHORT CHIP			
R3438	1-216-809-11	METAL CHIP	100	5%	1/10W	R3604	1-216-864-11	SHORT CHIP			
R3439	1-216-809-11	METAL CHIP	100	5%	1/10W	R3605	1-216-864-11	SHORT CHIP			
R3440	1-216-809-11	METAL CHIP	100	5%	1/10W	R3606	1-216-864-11	SHORT CHIP			
R3441	1-216-809-11	METAL CHIP	100	5%	1/10W	R3607	1-216-864-11	SHORT CHIP			
R3442	1-216-833-11	METAL CHIP	10K	5%	1/10W	R3608	1-216-864-11	SHORT CHIP			
R3445	1-216-864-11	SHORT CHIP				R3609	1-216-864-11	SHORT CHIP			
R3451	1-216-809-11	METAL CHIP	100	5%	1/10W	R3610	1-216-833-11	METAL CHIP	10K	5%	1/10W
R3452	1-216-864-11	SHORT CHIP				R3611	1-216-833-11	METAL CHIP	10K	5%	1/10W
R3454	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	R3612	1-216-845-11	METAL CHIP	100K	5%	1/10W
R3457	1-216-813-11	METAL CHIP	220	5%	1/10W	R3613	1-216-801-11	METAL CHIP	22	5%	1/10W
R3460	1-216-833-11	METAL CHIP	10K	5%	1/10W	R3614	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R3461	1-216-833-11	METAL CHIP	10K	5%	1/10W	R3615	1-218-867-11	METAL CHIP	6.8K	0.50%	1/10W
R3466	1-216-813-11	METAL CHIP	220	5%	1/10W	R3616	1-216-809-11	METAL CHIP	100	5%	1/10W
R3468	1-216-864-11	SHORT CHIP				R3800	1-216-864-11	SHORT CHIP			
R3469	1-216-864-11	SHORT CHIP				R3811	1-216-809-11	METAL CHIP	100	5%	1/10W
R3470	1-216-809-11	METAL CHIP	100	5%	1/10W	R3812	1-216-809-11	METAL CHIP	100	5%	1/10W
R3473	1-216-864-11	SHORT CHIP				R3813	1-216-809-11	METAL CHIP	100	5%	1/10W



REF. NO.	PART NO.	DESCRIPTION	VALUES			REF. NO.	PART NO.	DESCRIPTION	VALUES		
R3820	1-218-684-11	METAL CHIP	470	0.50%	1/10W	R3985	1-218-644-11	METAL CHIP	10	0.50%	1/10W
R3821	1-218-684-11	METAL CHIP	470	0.50%	1/10W	R3986	1-218-644-11	METAL CHIP	10	0.50%	1/10W
R3822	1-218-684-11	METAL CHIP	470	0.50%	1/10W	R8606	1-216-819-11	METAL CHIP	680	5%	1/10W
R3823	1-216-826-11	METAL CHIP	2.7K	5%	1/10W	R8607	1-216-819-11	METAL CHIP	680	5%	1/10W
R3824	1-216-826-11	METAL CHIP	2.7K	5%	1/10W	R8608	1-216-819-11	METAL CHIP	680	5%	1/10W
R3825	1-216-826-11	METAL CHIP	2.7K	5%	1/10W	R8609	1-216-809-11	METAL CHIP	100	5%	1/10W
R3826	1-216-809-11	METAL CHIP	100	5%	1/10W	R8610	1-216-809-11	METAL CHIP	100	5%	1/10W
R3828	1-218-682-11	METAL CHIP	390	0.50%	1/10W	R8611	1-216-809-11	METAL CHIP	100	5%	1/10W
R3829	1-218-682-11	METAL CHIP	390	0.50%	1/10W	R8612	1-216-820-11	METAL CHIP	820	5%	1/10W
R3830	1-218-682-11	METAL CHIP	390	0.50%	1/10W	R8613	1-216-820-11	METAL CHIP	820	5%	1/10W
R3831	1-216-864-11	SHORT CHIP				R8614	1-216-820-11	METAL CHIP	820	5%	1/10W
R3832	1-216-864-11	SHORT CHIP				R8615	1-216-809-11	METAL CHIP	100	5%	1/10W
R3833	1-216-864-11	SHORT CHIP				R8616	1-216-809-11	METAL CHIP	100	5%	1/10W
R3840	1-216-805-11	METAL CHIP	47	5%	1/10W	R8617	1-216-809-11	METAL CHIP	100	5%	1/10W
R3846	1-216-801-11	METAL CHIP	22	5%	1/10W	R8618	1-218-679-11	METAL CHIP	300	0.50%	1/10W
R3847	1-216-801-11	METAL CHIP	22	5%	1/10W	R8619	1-218-679-11	METAL CHIP	300	0.50%	1/10W
R3848	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	R8620	1-218-675-11	METAL CHIP	200	0.50%	1/10W
R3849	1-218-675-11	METAL CHIP	200	0.50%	1/10W	R8621	1-216-821-11	METAL CHIP	1K	5%	1/10W
R3850	1-218-675-11	METAL CHIP	200	0.50%	1/10W	R8622	1-218-679-11	METAL CHIP	300	0.50%	1/10W
R3851	1-216-809-11	METAL CHIP	100	5%	1/10W	R8623	1-218-679-11	METAL CHIP	300	0.50%	1/10W
R3852	1-218-675-11	METAL CHIP	200	0.50%	1/10W	R8624	1-218-675-11	METAL CHIP	200	0.50%	1/10W
R3854	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	R8625	1-216-821-11	METAL CHIP	1K	5%	1/10W
R3857	1-216-809-11	METAL CHIP	100	5%	1/10W	R8626	1-216-809-11	METAL CHIP	100	5%	1/10W
R3858	1-218-704-11	METAL CHIP	3.3K	0.50%	1/10W	R8627	1-216-809-11	METAL CHIP	100	5%	1/10W
R3862	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	R8628	1-216-809-11	METAL CHIP	100	5%	1/10W
R3863	1-218-700-11	METAL CHIP	2.2K	0.50%	1/10W	R8629	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R3864	1-216-827-11	METAL CHIP	3.3K	5%	1/10W	R8630	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R3865	1-216-809-11	METAL CHIP	100	5%	1/10W	R8631	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R3866	1-414-234-22	FERRITE	0μH			R8632	1-216-821-11	METAL CHIP	1K	5%	1/10W
R3867	1-414-234-22	FERRITE	0μH			R8636	1-216-821-11	METAL CHIP	1K	5%	1/10W
R3868	1-414-234-22	FERRITE	0μH			R8637	1-216-821-11	METAL CHIP	1K	5%	1/10W
R3881	1-216-807-11	METAL CHIP	68	5%	1/10W	R8638	1-216-821-11	METAL CHIP	1K	5%	1/10W
R3882	1-216-807-11	METAL CHIP	68	5%	1/10W	R8639	1-218-704-11	METAL CHIP	3.3K	0.50%	1/10W
R3883	1-216-807-11	METAL CHIP	68	5%	1/10W	R8641	1-216-821-11	METAL CHIP	1K	5%	1/10W
R3911	1-216-821-11	METAL CHIP	1K	5%	1/10W	R8642	1-218-703-11	METAL CHIP	3K	0.50%	1/10W
R3917	1-216-809-11	METAL CHIP	100	5%	1/10W	R8643	1-216-821-11	METAL CHIP	1K	5%	1/10W
R3928	1-216-833-11	METAL CHIP	10K	5%	1/10W	R8645	1-216-821-11	METAL CHIP	1K	5%	1/10W
R3933	1-216-864-11	SHORT CHIP				R8646	1-216-821-11	METAL CHIP	1K	5%	1/10W
R3956	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	R8647	1-216-833-11	METAL CHIP	10K	5%	1/10W
R3957	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	R8648	1-216-830-11	METAL CHIP	5.6K	5%	1/10W
R3958	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	R8650	1-216-833-11	METAL CHIP	10K	5%	1/10W
R3973	1-216-809-11	METAL CHIP	100	5%	1/10W	R8651	1-216-801-11	METAL CHIP	22	5%	1/10W
R3974	1-216-833-11	METAL CHIP	10K	5%	1/10W	R8652	1-216-833-11	METAL CHIP	10K	5%	1/10W
R3984	1-218-644-11	METAL CHIP	10	0.50%	1/10W	R8653	1-216-833-11	METAL CHIP	10K	5%	1/10W



REF. NO.	PART NO.	DESCRIPTION	VALUES	REF. NO.	PART NO.	DESCRIPTION	VALUES
R8654	1-216-864-11	SHORT CHIP		CRYSTAL			
R8655	1-216-864-11	SHORT CHIP		X2801	1-760-895-21	VIBRATOR, CERAMIC	
RESISTOR BRIDGE				X3089	1-781-945-21	VIBRATOR, CERAMIC	
RB3001	1-239-409-11	NETWORK RESISTOR(CHIP)	47	X3401	1-781-887-21	VIBRATOR, CRYSTAL	
RB3002	1-239-409-11	NETWORK RESISTOR(CHIP)	47	MX			
RB3003	1-239-409-11	NETWORK RESISTOR(CHIP)	47	Due to the complexity of this board, performing component level field repairs is not recommended. If service is required, complete board replacement is the preferred repair method.			
RB3004	1-239-409-11	NETWORK RESISTOR(CHIP)	47	Data is provided for reference only.			
RB3011	1-239-409-11	NETWORK RESISTOR(CHIP)	47	* A-1302-216-A MX BOARD, COMPLETE			
RB3013	1-239-409-11	NETWORK RESISTOR(CHIP)	47	CAPACITOR			
RB3014	1-239-409-11	NETWORK RESISTOR(CHIP)	47	C2001	1-162-917-11	CERAMIC CHIP	15pF 5% 50V
RB3015	1-239-409-11	NETWORK RESISTOR(CHIP)	47	C2002	1-126-933-11	ELECT	100µF 20% 16V
RB3100	1-233-574-11	RES, CHIP NETWORK	10	C2003	1-164-156-11	CERAMIC CHIP	0.1µF 25V
RB3101	1-233-574-11	RES, CHIP NETWORK	10	C2004	1-164-227-11	CERAMIC CHIP	0.022µF 10% 25V
RB3102	1-233-574-11	RES, CHIP NETWORK	10	C2005	1-162-964-11	CERAMIC CHIP	0.001µF 10% 50V
RB3103	1-233-574-11	RES, CHIP NETWORK	10	C2006	1-164-156-11	CERAMIC CHIP	0.1µF 25V
RB3304	1-233-576-11	RES, CHIP NETWORK	100	C2007	1-126-964-11	ELECT	10µF 20% 50V
RB3305	1-233-576-11	RES, CHIP NETWORK	100	C2010	1-164-156-11	CERAMIC CHIP	0.1µF 25V
RB3306	1-233-576-11	RES, CHIP NETWORK	100	C2011	1-164-156-11	CERAMIC CHIP	0.1µF 25V
RB3307	1-233-576-11	RES, CHIP NETWORK	100	C2012	1-107-826-11	CERAMIC CHIP	0.1µF 10% 16V
RB3401	1-234-524-21	RES, CHIP NETWORK	33	C2014	1-164-156-11	CERAMIC CHIP	0.1µF 25V
RB3402	1-234-524-21	RES, CHIP NETWORK	33	C2015	1-164-156-11	CERAMIC CHIP	0.1µF 25V
RB3403	1-234-524-21	RES, CHIP NETWORK	33	C2017	1-126-964-11	ELECT	10µF 20% 50V
RB3404	1-234-524-21	RES, CHIP NETWORK	33	C2019	1-126-964-11	ELECT	10µF 20% 50V
RB3405	1-234-524-21	RES, CHIP NETWORK	33	C2020	1-126-964-11	ELECT	10µF 20% 50V
RB3406	1-234-524-21	RES, CHIP NETWORK	33	C2022	1-126-964-11	ELECT	10µF 20% 50V
RB3407	1-239-409-11	NETWORK RESISTOR(CHIP)	47	C2024	1-126-933-11	ELECT	100µF 20% 16V
RB3408	1-239-409-11	NETWORK RESISTOR(CHIP)	47	C2025	1-164-156-11	CERAMIC CHIP	0.1µF 25V
RB3409	1-239-409-11	NETWORK RESISTOR(CHIP)	47	C2027	1-126-964-11	ELECT	10µF 20% 50V
RB3410	1-239-409-11	NETWORK RESISTOR(CHIP)	47	C2028	1-126-933-11	ELECT	100µF 20% 16V
RB3411	1-239-409-11	NETWORK RESISTOR(CHIP)	47	C2029	1-126-964-11	ELECT	10µF 20% 50V
RB3412	1-239-409-11	NETWORK RESISTOR(CHIP)	47	C2031	1-107-826-11	CERAMIC CHIP	0.1µF 10% 16V
RB3421	1-233-576-11	RES, CHIP NETWORK	100	C2032	1-107-826-11	CERAMIC CHIP	0.1µF 10% 16V
RB3422	1-233-576-11	RES, CHIP NETWORK	100	C2033	1-126-933-11	ELECT	100µF 20% 16V
RB3423	1-233-576-11	RES, CHIP NETWORK	100	C2034	1-162-917-11	CERAMIC CHIP	15pF 5% 50V
RB3424	1-233-576-11	RES, CHIP NETWORK	100	C2035	1-162-917-11	CERAMIC CHIP	15pF 5% 50V
RB3425	1-233-576-11	RES, CHIP NETWORK	100	C2036	1-164-156-11	CERAMIC CHIP	0.1µF 25V
RB3426	1-233-576-11	RES, CHIP NETWORK	100	C2037	1-164-156-11	CERAMIC CHIP	0.1µF 25V
RB3427	1-233-576-11	RES, CHIP NETWORK	100	C2038	1-162-916-11	CERAMIC CHIP	12pF 5% 50V
RB3428	1-233-576-11	RES, CHIP NETWORK	100	C2039	1-107-826-11	CERAMIC CHIP	0.1µF 10% 16V
RB3436	1-234-523-21	RES, CHIP NETWORK	0 (3216)				
RB3437	1-234-523-21	RES, CHIP NETWORK	0 (3216)				
RB3438	1-234-523-21	RES, CHIP NETWORK	0 (3216)				
RB3439	1-234-523-21	RES, CHIP NETWORK	0 (3216)				



REF. NO.	PART NO.	DESCRIPTION	VALUES			REF. NO.	PART NO.	DESCRIPTION	VALUES		
C2040	1-125-891-11	CERAMIC CHIP	0.47μF	10%	10V	C2084	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16
C2041	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V	C2085	1-125-891-11	CERAMIC CHIP	0.47μF	10%	10V
C2042	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V	C2086	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V
C2043	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V	C2087	1-125-891-11	CERAMIC CHIP	0.47μF	10%	10V
C2044	1-164-315-11	CERAMIC CHIP	470pF	5%	50V	C2088	1-216-864-11	SHORT CHIP			
C2045	1-126-933-11	ELECT	100μF	20%	16V	C2089	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C2046	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V	C2090	1-216-864-11	SHORT CHIP			
C2047	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V	C2091	1-162-927-11	CERAMIC CHIP	100pF	5%	50V
C2048	1-164-315-11	CERAMIC CHIP	470pF	5%	50V	C2092	1-162-927-11	CERAMIC CHIP	100pF	5%	50V
C2049	1-162-916-11	CERAMIC CHIP	12pF	5%	50V	C2096	1-125-891-11	CERAMIC CHIP	0.47μF	10%	10V
C2050	1-164-156-11	CERAMIC CHIP	0.1μF		25V	C2097	1-125-891-11	CERAMIC CHIP	0.47μF	10%	10V
C2051	1-125-837-91	CERAMIC CHIP	1μF	10%	6.3V	C2098	1-125-837-91	CERAMIC CHIP	1μF	10%	6.3V
C2052	1-125-891-11	CERAMIC CHIP	0.47μF	10%	10V	C2099	1-125-837-91	CERAMIC CHIP	1μF	10%	6.3V
C2053	1-125-891-11	CERAMIC CHIP	0.47μF	10%	10V	C2100	1-125-891-11	CERAMIC CHIP	0.47μF	10%	10V
C2054	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V	C2101	1-126-933-11	ELECT	100μF	20%	16V
C2055	1-126-933-11	ELECT	100μF	20%	16V	C2102	1-125-891-11	CERAMIC CHIP	0.47μF	10%	10V
C2056	1-125-891-11	CERAMIC CHIP	0.47μF	10%	10V	C2103	1-125-891-11	CERAMIC CHIP	0.47μF	10%	10V
C2057	1-164-156-11	CERAMIC CHIP	0.1μF		25V	C2104	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C2058	1-126-963-11	ELECT	4.7μF	20%	50V	C2105	1-125-891-11	CERAMIC CHIP	0.47μF	10%	10V
C2059	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V	C2106	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C2060	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V	C2107	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C2061	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V	C2108	1-126-933-11	ELECT	100μF	20%	16V
C2062	1-164-156-11	CERAMIC CHIP	0.1μF		25V	C2109	1-125-837-91	CERAMIC CHIP	1μF	10%	6.3V
C2063	1-126-963-11	ELECT	4.7μF	20%	50V	C2110	1-162-919-11	CERAMIC CHIP	22pF	5%	50V
C2064	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V	C2111	1-126-964-11	ELECT	10μF	20%	50V
C2065	1-126-933-11	ELECT	100μF	20%	16V	C2112	1-126-964-11	ELECT	10μF	20%	50V
C2066	1-164-156-11	CERAMIC CHIP	0.1μF		25V	C2113	1-126-964-11	ELECT	10μF	20%	50V
C2067	1-109-982-11	CERAMIC CHIP	1μF	10%	10V	C2114	1-126-964-11	ELECT	10μF	20%	50V
C2068	1-164-156-11	CERAMIC CHIP	0.1μF		25V	C2115	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C2069	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V	C2116	1-126-933-11	ELECT	100μF	20%	16V
C2070	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V	C2117	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C2071	1-126-963-11	ELECT	4.7μF	20%	50V	C2118	1-162-919-11	CERAMIC CHIP	22pF	5%	50V
C2072	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V	C2120	1-126-964-11	ELECT	10μF	20%	50V
C2073	1-164-156-11	CERAMIC CHIP	0.1μF		25V	C2121	1-126-964-11	ELECT	10μF	20%	50V
C2074	1-126-933-11	ELECT	100μF	20%	16V	C2122	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V
C2075	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V	C2123	1-125-837-91	CERAMIC CHIP	1μF	10%	6.3V
C2076	1-109-982-11	CERAMIC CHIP	1μF	10%	10V	C2124	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C2077	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V	C2126	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V
C2078	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V	C2130	1-126-933-11	ELECT	100μF	20%	16V
C2079	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V	C2131	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C2080	1-126-963-11	ELECT	4.7μF	20%	50V	C2132	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C2081	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V	C2134	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C2082	1-125-891-11	CERAMIC CHIP	0.47μF	10%	10V	C2135	1-125-837-91	CERAMIC CHIP	1μF	10%	6.3V
C2083	1-109-982-11	CERAMIC CHIP	1μF	10%	10V	C2137	1-126-964-11	ELECT	10μF	20%	50V



REF. NO.	PART NO.	DESCRIPTION	VALUES			REF. NO.	PART NO.	DESCRIPTION	VALUES		
C2138	1-164-156-11	CERAMIC CHIP	0.1μF	25V		C2244	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V
C2200	1-164-156-11	CERAMIC CHIP	0.1μF	25V		C2245	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C2201	1-164-156-11	CERAMIC CHIP	0.1μF	25V		C2246	1-126-947-11	ELECT	47μF	20%	35V
C2202	1-164-156-11	CERAMIC CHIP	0.1μF	25V		C2247	1-162-975-11	CERAMIC CHIP	24pF	5%	50V
C2204	1-164-156-11	CERAMIC CHIP	0.1μF	25V		C2248	1-162-975-11	CERAMIC CHIP	24pF	5%	50V
C2205	1-164-156-11	CERAMIC CHIP	0.1μF	25V		C2249	1-164-360-11	CERAMIC CHIP	0.1μF		16V
C2206	1-164-156-11	CERAMIC CHIP	0.1μF	25V		C2250	1-164-360-11	CERAMIC CHIP	0.1μF		16V
C2207	1-164-156-11	CERAMIC CHIP	0.1μF	25V		C2251	1-164-392-11	CERAMIC CHIP	390pF	5%	50V
C2208	1-164-156-11	CERAMIC CHIP	0.1μF	25V		C2300	1-162-968-11	CERAMIC CHIP	0.0047μF	10%	50V
C2209	1-164-156-11	CERAMIC CHIP	0.1μF	25V		C2301	1-126-933-11	ELECT	100μF	20%	16V
C2210	1-164-156-11	CERAMIC CHIP	0.1μF	25V		C2302	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C2211	1-164-156-11	CERAMIC CHIP	0.1μF	25V		C2305	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C2212	1-126-933-11	ELECT	100μF	20%	16V	C2306	1-162-920-11	CERAMIC CHIP	27pF	5%	50V
C2213	1-126-947-11	ELECT	47μF	20%	35V	C2307	1-162-919-11	CERAMIC CHIP	22pF	5%	50V
C2214	1-126-933-11	ELECT	100μF	20%	16V	C2308	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C2215	1-164-156-11	CERAMIC CHIP	0.1μF	25V		C2309	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C2216	1-164-156-11	CERAMIC CHIP	0.1μF	25V		C2310	1-162-919-11	CERAMIC CHIP	22pF	5%	50V
C2217	1-164-156-11	CERAMIC CHIP	0.1μF	25V		C2311	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C2218	1-164-156-11	CERAMIC CHIP	0.1μF	25V		C2312	1-162-910-11	CERAMIC CHIP	5pF	0.25pF	50V
C2219	1-164-156-11	CERAMIC CHIP	0.1μF	25V		C2313	1-115-156-11	CERAMIC CHIP	1μF		10V
C2220	1-164-156-11	CERAMIC CHIP	0.1μF	25V		C2315	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C2221	1-162-917-11	CERAMIC CHIP	15pF	5%	50V	C2317	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C2222	1-162-917-11	CERAMIC CHIP	15pF	5%	50V	C2318	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C2223	1-125-837-91	CERAMIC CHIP	1μF	10%	6.3V	C2319	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C2224	1-115-156-11	CERAMIC CHIP	1μF		10V	C2331	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C2225	1-162-917-11	CERAMIC CHIP	15pF	5%	50V	C2347	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C2226	1-164-156-11	CERAMIC CHIP	0.1μF		25V	C2348	1-126-933-11	ELECT	100μF	20%	16V
C2227	1-126-933-11	ELECT	100μF	20%	16V	C2349	1-162-968-11	CERAMIC CHIP	0.0047μF	10%	50V
C2228	1-162-913-11	CERAMIC CHIP	8pF	0.50pF	50V	C2352	1-126-933-11	ELECT	100μF	20%	16V
C2229	1-162-913-11	CERAMIC CHIP	8pF	0.50pF	50V	C2353	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C2230	1-162-915-11	CERAMIC CHIP	10pF	0.50pF	50V	C2354	1-162-907-11	CERAMIC CHIP	2pF	0.25pF	50V
C2231	1-125-837-91	CERAMIC CHIP	1μF	10%	6.3V	C2355	1-164-245-11	CERAMIC CHIP	0.015μF	10%	25V
C2232	1-164-156-11	CERAMIC CHIP	0.1μF		25V	C2358	1-126-935-11	ELECT	470μF	20%	16V
C2233	1-164-156-11	CERAMIC CHIP	0.1μF		25V	C2359	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C2234	1-126-933-11	ELECT	100μF	20%	16V	C2361	1-126-933-11	ELECT	100μF	20%	16V
C2235	1-164-156-11	CERAMIC CHIP	0.1μF		25V	C2362	1-126-933-11	ELECT	100μF	20%	16V
C2236	1-164-156-11	CERAMIC CHIP	0.1μF		25V	C2364	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C2237	1-162-917-11	CERAMIC CHIP	15pF	5%	50V	C2366	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C2238	1-126-933-11	ELECT	100μF	20%	16V	C2367	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C2239	1-164-156-11	CERAMIC CHIP	0.1μF		25V	C2368	1-162-963-11	CERAMIC CHIP	680pF	10%	50V
C2240	1-126-933-11	ELECT	100μF	20%	16V	C2369	1-162-964-11	CERAMIC CHIP	0.001μF	10%	50V
C2241	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V	C2370	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C2242	1-126-934-11	ELECT	220μF	20%	16V	C2371	1-162-964-11	CERAMIC CHIP	0.001μF	10%	50V
C2243	1-126-934-11	ELECT	220μF	20%	16V	C2372	1-162-960-11	CERAMIC CHIP	220pF	10%	50V



REF. NO.	PART NO.	DESCRIPTION	VALUES			REF. NO.	PART NO.	DESCRIPTION	VALUES		
C2373	1-135-834-91	CERAMIC CHIP	2.2μF		6.3V	C2550	1-126-963-11	ELECT	4.7μF	20%	50V
C2374	1-162-960-11	CERAMIC CHIP	220pF	10%	50V	C2551	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V
C2375	1-135-834-91	CERAMIC CHIP	2.2μF		6.3V	C2553	1-126-947-11	ELECT	47μF	20%	35V
C2376	1-162-963-11	CERAMIC CHIP	680pF	10%	50V	C2554	1-126-947-11	ELECT	47μF	20%	35V
C2500	1-162-966-11	CERAMIC CHIP	0.0022μF	10%	50V	C2558	1-126-963-11	ELECT	4.7μF	20%	50V
C2501	1-162-966-11	CERAMIC CHIP	0.0022μF	10%	50V	C2559	1-126-933-11	ELECT	100μF	20%	16V
C2503	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V	C2560	1-126-947-11	ELECT	47μF	20%	35V
C2504	1-126-933-11	ELECT	100μF	20%	16V	C2561	1-126-963-11	ELECT	4.7μF	20%	50V
C2506	1-164-156-11	CERAMIC CHIP	0.1μF		25V	C2563	1-126-961-11	ELECT	2.2μF	20%	50V
C2508	1-126-933-11	ELECT	100μF	20%	16V	C2564	1-126-961-11	ELECT	2.2μF	20%	50V
C2510	1-162-960-11	CERAMIC CHIP	220pF	10%	50V	C2565	1-125-837-91	CERAMIC CHIP	1μF	10%	6.3V
C2512	1-135-834-91	CERAMIC CHIP	2.2μF		6.3V	C2566	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V
C2513	1-162-966-11	CERAMIC CHIP	0.0022μF	10%	50V	C2569	1-126-961-11	ELECT	2.2μF	20%	50V
C2514	1-164-156-11	CERAMIC CHIP	0.1μF		25V	C2570	1-162-966-11	CERAMIC CHIP	0.0022μF	10%	50V
C2515	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V	C2571	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C2516	1-126-933-11	ELECT	100μF	20%	16V	C2572	1-126-960-11	ELECT	1μF	20%	50V
C2517	1-162-966-11	CERAMIC CHIP	0.0022μF	10%	50V	C2574	1-162-966-11	CERAMIC CHIP	0.0022μF	10%	50V
C2518	1-162-966-11	CERAMIC CHIP	0.0022μF	10%	50V	C2575	1-126-960-11	ELECT	1μF	20%	50V
C2519	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V	C2579	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V
C2520	1-162-960-11	CERAMIC CHIP	220pF	10%	50V	C2582	1-126-933-11	ELECT	100μF	20%	16V
C2521	1-162-960-11	CERAMIC CHIP	220pF	10%	50V	C2584	1-126-933-11	ELECT	100μF	20%	16V
C2522	1-126-947-11	ELECT	47μF	20%	35V	C2585	1-135-834-91	CERAMIC CHIP	2.2μF		6.3V
C2523	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V	C2586	1-162-964-11	CERAMIC CHIP	0.001μF	10%	50V
C2524	1-135-834-91	CERAMIC CHIP	2.2μF		6.3V	C2587	1-135-834-91	CERAMIC CHIP	2.2μF		6.3V
C2525	1-135-834-91	CERAMIC CHIP	2.2μF		6.3V	C2588	1-162-964-11	CERAMIC CHIP	0.001μF	10%	50V
C2527	1-135-834-91	CERAMIC CHIP	2.2μF		6.3V	C2589	1-125-837-91	CERAMIC CHIP	1μF	10%	6.3V
C2528	1-162-962-11	CERAMIC CHIP	470pF	10%	50V	C2590	1-125-891-11	CERAMIC CHIP	0.47μF	10%	10V
C2530	1-126-947-11	ELECT	47μF	20%	35V	C2591	1-125-891-11	CERAMIC CHIP	0.47μF	10%	10V
C2532	1-135-834-91	CERAMIC CHIP	2.2μF		6.3V	CONNECTOR					
C2533	1-162-960-11	CERAMIC CHIP	220pF	10%	50V	CN2006	1-793-174-11	SOCKET,PC CONNECTOR (PC BOARD)			
C2534	1-126-947-11	ELECT	47μF	20%	35V	* CN2301	1-764-333-11	PIN, CONNECTOR(PCB)(V TYPE)"		10P	
C2535	1-162-962-11	CERAMIC CHIP	470pF	10%	50V	* CN2304	1-764-334-11	PIN, CONNECTOR(PCB)(V TYPE)"		11P	
C2536	1-135-834-91	CERAMIC CHIP	2.2μF		6.3V	CN2305	1-770-721-11	CONNECTOR, BOARD TO BOARD		4P	
C2538	1-126-947-11	ELECT	47μF	20%	35V	DIODE					
C2539	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V	D2302	8-719-914-44	DIODE		DAP202K	
C2540	1-162-915-11	CERAMIC CHIP	10pF	0.50pF	50V	D2303	8-719-914-44	DIODE		DAP202K	
C2541	1-162-915-11	CERAMIC CHIP	10pF	0.50pF	50V	D2310	8-719-083-57	DIODE		UDZSTE-173.6B	
C2542	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V	D2500	8-719-404-50	DIODE		MA111-TX	
C2543	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V	D2501	8-719-404-50	DIODE		MA111-TX	
C2544	1-126-963-11	ELECT	4.7μF	20%	50V						
C2545	1-162-966-11	CERAMIC CHIP	0.0022μF	10%	50V						
C2546	1-162-966-11	CERAMIC CHIP	0.0022μF	10%	50V						
C2548	1-126-947-11	ELECT	47μF	20%	35V						
C2549	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V						



REF. NO.	PART NO.	DESCRIPTION	VALUES	REF. NO.	PART NO.	DESCRIPTION	VALUES
D2502	8-719-404-50	DIODE	MA111-TX	<u>FILTER</u>			
D2503	8-719-404-50	DIODE	MA111-TX	FL2001	1-239-848-21	FILTER, LOW PASS	
D2504	8-719-404-50	DIODE	MA111-TX	FL2002	1-239-848-21	FILTER, LOW PASS	
D2505	8-719-978-33	DIODE	DTZ-TT11-6.8B	FL2003	1-239-848-21	FILTER, LOW PASS	
D2506	8-719-978-33	DIODE	DTZ-TT11-6.8B	FL2201	1-239-848-21	FILTER, LOW PASS	
				FL2202	1-239-848-21	FILTER, LOW PASS	
<u>FERRITE BEAD</u>				FL2203	1-239-848-21	FILTER, LOW PASS	
FB2001	1-414-229-11	FERRITE	0μH	FL2204	1-239-848-21	FILTER, LOW PASS	
FB2002	1-414-229-11	FERRITE	0μH	<u>IC</u>			
FB2200	1-414-229-11	FERRITE	0μH	IC2001	8-752-394-69	IC	CXD2073Q-T4
FB2501	1-216-864-11	SHORT CHIP		IC2004	8-752-102-21	IC	CXA2103AQ
FB2503	1-216-864-11	SHORT CHIP		IC2005	8-752-102-21	IC	CXA2103AQ
FB2504	1-216-864-11	SHORT CHIP		IC2006	8-752-103-44	IC	CXA2171Q
FB2505	1-414-229-11	FERRITE	0μH	IC2008	8-759-448-68	IC	NJM2283V-TE1
FB2507	1-414-229-11	FERRITE	0μH	IC2009	8-759-549-07	IC	SN74LV157APWR
FB2508	1-414-229-11	FERRITE	0μH	IC2010	8-759-549-07	IC	SN74LV157APWR
FB2509	1-216-864-11	SHORT CHIP		IC2200	6-700-960-01	IC	UPD64083GF-3BA
FB2510	1-414-229-11	FERRITE	0μH	IC2201	6-700-399-01	IC	UPC2925T-E1
FB2511	1-216-864-11	SHORT CHIP		IC2202	8-759-448-68	IC	NJM2283V-TE1
FB2512	1-414-229-11	FERRITE	0μH	IC2300	6-803-465-01	IC	M306V7MG-063FP
FB2513	1-216-864-11	SHORT CHIP		IC2301	6-801-375-01	IC	PST9129NL
FB2514	1-216-864-11	SHORT CHIP		IC2302	6-704-573-01	IC	M24C32-WMN6T(B)
FB2515	1-414-229-11	FERRITE	0μH	IC2305	8-759-641-26	IC	NJM2391DL1-33(TE1)
FB2516	1-414-229-11	FERRITE	0μH	IC2500	8-759-394-57	IC	PST593C-MMP-4P
FB2517	1-414-229-11	FERRITE	0μH	IC2501	6-801-750-01	IC	TC94A04F-014
FB2518	1-414-229-11	FERRITE	0μH	IC2502	8-759-331-71	IC	NJM4558E(TE2)
FB2519	1-414-229-11	FERRITE	0μH	IC2504	8-759-642-22	IC	UPC29M05T-E2
FB2520	1-216-864-11	SHORT CHIP		<u>CHIP CONDUCTOR</u>			
FB2521	1-216-864-11	SHORT CHIP		JR2010	1-216-864-11	SHORT CHIP	
FB2522	1-414-229-11	FERRITE	0μH	JR2011	1-216-864-11	SHORT CHIP	
FB2530	1-216-864-11	SHORT CHIP		JR2012	1-216-864-11	SHORT CHIP	
FB2531	1-216-864-11	SHORT CHIP		JR2013	1-216-864-11	SHORT CHIP	
FB2532	1-216-864-11	SHORT CHIP		JR2014	1-216-864-11	SHORT CHIP	
FB2533	1-216-864-11	SHORT CHIP		JR2015	1-216-864-11	SHORT CHIP	
FB2534	1-216-864-11	SHORT CHIP		<u>COIL</u>			
FB2535	1-216-864-11	SHORT CHIP		L2001	1-469-555-21	INDUCTOR	10μH
FB2536	1-216-864-11	SHORT CHIP		L2002	1-469-555-21	INDUCTOR	10μH
FB2537	1-216-864-11	SHORT CHIP		L2003	1-469-555-21	INDUCTOR	10μH
FB2538	1-216-864-11	SHORT CHIP		L2004	1-469-555-21	INDUCTOR	10μH
FB2539	1-216-864-11	SHORT CHIP					



REF. NO.	PART NO.	DESCRIPTION	VALUES	REF. NO.	PART NO.	DESCRIPTION	VALUES
L2005	1-469-555-21	INDUCTOR	10μH	Q2202	8-729-422-27	TRANSISTOR	2SD601A-Q
L2006	1-469-555-21	INDUCTOR	10μH	Q2203	8-729-424-02	TRANSISTOR	2SB709A-QRS-TX
L2007	1-469-555-21	INDUCTOR	10μH	Q2204	8-729-424-02	TRANSISTOR	2SB709A-QRS-TX
L2008	1-469-555-21	INDUCTOR	10μH	Q2205	8-729-422-27	TRANSISTOR	2SD601A-Q
L2009	1-469-555-21	INDUCTOR	10μH	Q2206	8-729-422-27	TRANSISTOR	2SD601A-Q
L2010	1-469-555-21	INDUCTOR	10μH	Q2207	8-729-422-27	TRANSISTOR	2SD601A-Q
L2011	1-469-555-21	INDUCTOR	10μH	Q2208	8-729-422-27	TRANSISTOR	2SD601A-Q
L2012	1-469-555-21	INDUCTOR	10μH	Q2209	8-729-422-27	TRANSISTOR	2SD601A-Q
L2013	1-469-555-21	INDUCTOR	10μH	Q2210	8-729-422-27	TRANSISTOR	2SD601A-Q
L2200	1-469-555-21	INDUCTOR	10μH	Q2211	8-729-422-27	TRANSISTOR	2SD601A-Q
L2201	1-469-555-21	INDUCTOR	10μH	Q2212	8-729-422-27	TRANSISTOR	2SD601A-Q
L2202	1-469-555-21	INDUCTOR	10μH	Q2213	8-729-422-27	TRANSISTOR	2SD601A-Q
L2203	1-216-001-00	RES-CHIP	10 5% 1/10W	Q2214	8-729-424-02	TRANSISTOR	2SB709A-QRS-TX
L2204	1-469-555-21	INDUCTOR	10μH	Q2215	8-729-422-27	TRANSISTOR	2SD601A-Q
L2205	1-216-001-00	RES-CHIP	10 5% 1/10W	Q2216	8-729-424-02	TRANSISTOR	2SB709A-QRS-TX
L2206	1-469-555-21	INDUCTOR	10μH	Q2301	8-729-422-27	TRANSISTOR	2SD601A-Q
L2207	1-469-553-21	INDUCTOR	4.7μH	Q2302	8-729-422-27	TRANSISTOR	2SD601A-Q
L2303	1-469-555-21	INDUCTOR	10μH	Q2303	8-729-422-27	TRANSISTOR	2SD601A-Q
L2501	1-412-537-31	INDUCTOR	100μH	Q2304	8-729-422-27	TRANSISTOR	2SD601A-Q
L2502	1-216-295-91	SHORT CHIP		Q2308	8-729-424-02	TRANSISTOR	2SB709A-QRS-TX
TRANSISTOR				Q2311	8-729-422-27	TRANSISTOR	2SD601A-Q
Q2001	8-729-422-27	TRANSISTOR	2SD601A-Q	Q2312	8-729-422-27	TRANSISTOR	2SD601A-Q
Q2002	8-729-422-27	TRANSISTOR	2SD601A-Q	Q2313	8-729-422-27	TRANSISTOR	2SD601A-Q
Q2003	8-729-424-02	TRANSISTOR	2SB709A-QRS-TX	Q2314	8-729-424-02	TRANSISTOR	2SB709A-QRS-TX
Q2004	8-729-422-27	TRANSISTOR	2SD601A-Q	Q2315	8-729-424-02	TRANSISTOR	2SB709A-QRS-TX
Q2005	8-729-424-02	TRANSISTOR	2SB709A-QRS-TX	Q2316	8-729-424-02	TRANSISTOR	2SB709A-QRS-TX
Q2006	8-729-422-27	TRANSISTOR	2SD601A-Q	Q2320	8-729-422-27	TRANSISTOR	2SD601A-Q
Q2007	8-729-422-27	TRANSISTOR	2SD601A-Q	Q2321	8-729-422-27	TRANSISTOR	2SD601A-Q
Q2008	8-729-422-27	TRANSISTOR	2SD601A-Q	Q2322	8-729-422-27	TRANSISTOR	2SD601A-Q
Q2009	8-729-422-27	TRANSISTOR	2SD601A-Q	Q2323	8-729-422-27	TRANSISTOR	2SD601A-Q
Q2010	8-729-422-27	TRANSISTOR	2SD601A-Q	Q2324	8-729-422-27	TRANSISTOR	2SD601A-Q
Q2011	8-729-424-02	TRANSISTOR	2SB709A-QRS-TX	Q2500	8-729-422-27	TRANSISTOR	2SD601A-Q
Q2012	8-729-424-02	TRANSISTOR	2SB709A-QRS-TX	Q2501	8-729-422-27	TRANSISTOR	2SD601A-Q
Q2013	8-729-424-02	TRANSISTOR	2SB709A-QRS-TX	Q2502	8-729-424-02	TRANSISTOR	2SB709A-QRS-TX
Q2014	8-729-422-27	TRANSISTOR	2SD601A-Q	Q2503	8-729-422-27	TRANSISTOR	2SD601A-Q
Q2015	8-729-424-02	TRANSISTOR	2SB709A-QRS-TX	Q2504	8-729-422-27	TRANSISTOR	2SD601A-Q
Q2016	8-729-422-27	TRANSISTOR	2SD601A-Q	Q2505	8-729-422-27	TRANSISTOR	2SD601A-Q
Q2018	8-729-422-27	TRANSISTOR	2SD601A-Q	Q2506	8-729-422-27	TRANSISTOR	2SD601A-Q
Q2019	8-729-422-27	TRANSISTOR	2SD601A-Q	Q2507	8-729-422-27	TRANSISTOR	2SD601A-Q
Q2200	8-729-424-02	TRANSISTOR	2SB709A-QRS-TX	Q2508	8-729-422-27	TRANSISTOR	2SD601A-Q
Q2201	8-729-424-02	TRANSISTOR	2SB709A-QRS-TX	Q2509	8-729-422-27	TRANSISTOR	2SD601A-Q
				Q2510	8-729-422-27	TRANSISTOR	2SD601A-Q
				Q2511	8-729-422-27	TRANSISTOR	2SD601A-Q
				Q2512	8-729-422-27	TRANSISTOR	2SD601A-Q



REF. NO.	PART NO.	DESCRIPTION	VALUES			REF. NO.	PART NO.	DESCRIPTION	VALUES		
Q2513	8-729-422-27	TRANSISTOR	2SD601A-Q			R2049	1-218-710-11	METAL CHIP	5.6K	0.50%	1/10W
Q2600	8-729-422-27	TRANSISTOR	2SD601A-Q			R2050	1-216-817-11	METAL CHIP	470	5%	1/10W
RESISTOR						R2051	1-216-817-11	METAL CHIP	470	5%	1/10W
						R2052	1-216-835-11	METAL CHIP	15K	5%	1/10W
						R2053	1-216-864-11	SHORT CHIP			
						R2054	1-216-835-11	METAL CHIP	15K	5%	1/10W
						R2055	1-216-833-11	METAL CHIP	10K	5%	1/10W
R2001	1-216-809-11	METAL CHIP	100	5%	1/10W	R2056	1-216-809-11	METAL CHIP	100	5%	1/10W
R2002	1-216-821-11	METAL CHIP	1K	5%	1/10W	R2057	1-216-809-11	METAL CHIP	100	5%	1/10W
R2003	1-218-686-11	METAL CHIP	560	0.50%	1/10W	R2058	1-216-809-11	METAL CHIP	100	5%	1/10W
R2004	1-216-821-11	METAL CHIP	1K	5%	1/10W						
R2005	1-216-821-11	METAL CHIP	1K	5%	1/10W						
						R2059	1-216-809-11	METAL CHIP	100	5%	1/10W
						R2061	1-216-828-11	METAL CHIP	3.9K	5%	1/10W
						R2064	1-216-828-11	METAL CHIP	3.9K	5%	1/10W
						R2067	1-216-809-11	METAL CHIP	100	5%	1/10W
						R2069	1-216-864-11	SHORT CHIP			
R2006	1-216-825-11	METAL CHIP	2.2K	5%	1/10W						
R2007	1-218-708-11	METAL CHIP	4.7K	0.50%	1/10W	R2071	1-216-864-11	SHORT CHIP			
R2008	1-218-692-11	METAL CHIP	1K	0.50%	1/10W	R2072	1-216-841-11	METAL CHIP	47K	5%	1/10W
R2009	1-216-821-11	METAL CHIP	1K	5%	1/10W	R2073	1-216-841-11	METAL CHIP	47K	5%	1/10W
R2010	1-216-821-11	METAL CHIP	1K	5%	1/10W	R2074	1-216-833-11	METAL CHIP	10K	5%	1/10W
						R2075	1-216-864-11	SHORT CHIP			
R2011	1-218-686-11	METAL CHIP	560	0.50%	1/10W	R2076	1-216-864-11	SHORT CHIP			
R2012	1-216-821-11	METAL CHIP	1K	5%	1/10W	R2077	1-216-833-11	METAL CHIP	10K	5%	1/10W
R2013	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	R2081	1-216-809-11	METAL CHIP	100	5%	1/10W
R2014	1-216-821-11	METAL CHIP	1K	5%	1/10W	R2082	1-216-809-11	METAL CHIP	100	5%	1/10W
R2015	1-218-734-11	METAL CHIP	56K	0.50%	1/10W	R2083	1-216-851-11	METAL CHIP	330K	5%	1/10W
R2016	1-216-839-11	METAL CHIP	33K	5%	1/10W	R2086	1-216-818-11	METAL CHIP	560	5%	1/10W
R2017	1-216-837-11	METAL CHIP	22K	5%	1/10W	R2087	1-216-818-11	METAL CHIP	560	5%	1/10W
R2018	1-216-812-11	METAL CHIP	180	5%	1/10W	R2091	1-216-809-11	METAL CHIP	100	5%	1/10W
R2020	1-216-811-11	METAL CHIP	150	5%	1/10W	R2092	1-216-818-11	METAL CHIP	560	5%	1/10W
R2022	1-218-704-11	METAL CHIP	3.3K	0.50%	1/10W	R2093	1-216-818-11	METAL CHIP	560	5%	1/10W
R2023	1-216-839-11	METAL CHIP	33K	5%	1/10W	R2094	1-218-716-11	METAL CHIP	10K	0.50%	1/10W
R2024	1-216-837-11	METAL CHIP	22K	5%	1/10W	R2095	1-216-864-11	SHORT CHIP			
R2025	1-218-700-11	METAL CHIP	2.2K	0.50%	1/10W	R2097	1-216-809-11	METAL CHIP	100	5%	1/10W
R2026	1-218-704-11	METAL CHIP	3.3K	0.50%	1/10W	R2099	1-216-809-11	METAL CHIP	100	5%	1/10W
R2027	1-216-864-11	SHORT CHIP				R2101	1-216-821-11	METAL CHIP	1K	5%	1/10W
R2030	1-216-817-11	METAL CHIP	470	5%	1/10W	R2103	1-216-809-11	METAL CHIP	100	5%	1/10W
R2032	1-216-817-11	METAL CHIP	470	5%	1/10W	R2105	1-216-809-11	METAL CHIP	100	5%	1/10W
R2035	1-216-817-11	METAL CHIP	470	5%	1/10W	R2107	1-216-809-11	METAL CHIP	100	5%	1/10W
R2036	1-216-837-11	METAL CHIP	22K	5%	1/10W	R2110	1-216-818-11	METAL CHIP	560	5%	1/10W
R2037	1-216-864-11	SHORT CHIP				R2111	1-216-818-11	METAL CHIP	560	5%	1/10W
R2038	1-216-864-11	SHORT CHIP				R2112	1-216-809-11	METAL CHIP	100	5%	1/10W
R2039	1-216-864-11	SHORT CHIP				R2113	1-216-809-11	METAL CHIP	100	5%	1/10W
R2040	1-216-817-11	METAL CHIP	470	5%	1/10W	R2114	1-216-805-11	METAL CHIP	47	5%	1/10W
R2041	1-216-837-11	METAL CHIP	22K	5%	1/10W	R2115	1-216-805-11	METAL CHIP	47	5%	1/10W
R2042	1-216-864-11	SHORT CHIP									
R2043	1-216-864-11	SHORT CHIP									
R2045	1-218-686-11	METAL CHIP	560	0.50%	1/10W						
R2046	1-218-686-11	METAL CHIP	560	0.50%	1/10W						
R2048	1-218-710-11	METAL CHIP	5.6K	0.50%	1/10W						



REF. NO.	PART NO.	DESCRIPTION	VALUES			REF. NO.	PART NO.	DESCRIPTION	VALUES		
R2116	1-216-805-11	METAL CHIP	47	5%	1/10W	R2235	1-216-822-11	METAL CHIP	1.2K	5%	1/10W
R2118	1-216-809-11	METAL CHIP	100	5%	1/10W	R2236	1-216-813-11	METAL CHIP	220	5%	1/10W
R2119	1-216-809-11	METAL CHIP	100	5%	1/10W	R2237	1-216-820-11	METAL CHIP	820	5%	1/10W
R2120	1-216-809-11	METAL CHIP	100	5%	1/10W	R2238	1-216-819-11	METAL CHIP	680	5%	1/10W
R2123	1-216-809-11	METAL CHIP	100	5%	1/10W	R2239	1-216-821-11	METAL CHIP	1K	5%	1/10W
R2124	1-216-809-11	METAL CHIP	100	5%	1/10W	R2240	1-216-834-11	METAL CHIP	12K	5%	1/10W
R2125	1-216-809-11	METAL CHIP	100	5%	1/10W	R2241	1-216-839-11	METAL CHIP	33K	5%	1/10W
R2126	1-216-809-11	METAL CHIP	100	5%	1/10W	R2242	1-218-680-11	METAL CHIP	330	0.50%	1/10W
R2131	1-216-809-11	METAL CHIP	100	5%	1/10W	R2243	1-216-834-11	METAL CHIP	12K	5%	1/10W
R2133	1-216-864-11	SHORT CHIP				R2244	1-216-839-11	METAL CHIP	33K	5%	1/10W
R2201	1-216-821-11	METAL CHIP	1K	5%	1/10W	R2245	1-218-684-11	METAL CHIP	470	0.50%	1/10W
R2202	1-216-809-11	METAL CHIP	100	5%	1/10W	R2246	1-216-821-11	METAL CHIP	1K	5%	1/10W
R2203	1-216-809-11	METAL CHIP	100	5%	1/10W	R2247	1-216-805-11	METAL CHIP	47	5%	1/10W
R2204	1-216-821-11	METAL CHIP	1K	5%	1/10W	R2248	1-216-821-11	METAL CHIP	1K	5%	1/10W
R2205	1-216-864-11	SHORT CHIP				R2249	1-216-805-11	METAL CHIP	47	5%	1/10W
R2206	1-216-864-11	SHORT CHIP				R2250	1-216-830-11	METAL CHIP	5.6K	5%	1/10W
R2207	1-216-809-11	METAL CHIP	100	5%	1/10W	R2251	1-216-818-11	METAL CHIP	560	5%	1/10W
R2208	1-216-809-11	METAL CHIP	100	5%	1/10W	R2252	1-216-821-11	METAL CHIP	1K	5%	1/10W
R2209	1-216-821-11	METAL CHIP	1K	5%	1/10W	R2253	1-216-809-11	METAL CHIP	100	5%	1/10W
R2210	1-216-818-11	METAL CHIP	560	5%	1/10W	R2254	1-216-817-11	METAL CHIP	470	5%	1/10W
R2211	1-216-821-11	METAL CHIP	1K	5%	1/10W	R2255	1-216-817-11	METAL CHIP	470	5%	1/10W
R2212	1-216-818-11	METAL CHIP	560	5%	1/10W	R2256	1-216-821-11	METAL CHIP	1K	5%	1/10W
R2213	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	R2257	1-216-833-11	METAL CHIP	10K	5%	1/10W
R2214	1-216-821-11	METAL CHIP	1K	5%	1/10W	R2258	1-216-864-11	SHORT CHIP			
R2215	1-216-830-11	METAL CHIP	5.6K	5%	1/10W	R2259	1-216-864-11	SHORT CHIP			
R2216	1-216-817-11	METAL CHIP	470	5%	1/10W	R2260	1-216-864-11	SHORT CHIP			
R2217	1-216-817-11	METAL CHIP	470	5%	1/10W	R2261	1-216-864-11	SHORT CHIP			
R2218	1-216-830-11	METAL CHIP	5.6K	5%	1/10W	R2262	1-216-864-11	SHORT CHIP			
R2219	1-216-830-11	METAL CHIP	5.6K	5%	1/10W	R2263	1-216-864-11	SHORT CHIP			
R2220	1-216-821-11	METAL CHIP	1K	5%	1/10W	R2264	1-216-864-11	SHORT CHIP			
R2221	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	R2267	1-216-864-11	SHORT CHIP			
R2222	1-216-833-11	METAL CHIP	10K	5%	1/10W	R2298	1-216-821-11	METAL CHIP	1K	5%	1/10W
R2223	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	R2299	1-216-841-11	METAL CHIP	47K	5%	1/10W
R2224	1-216-809-11	METAL CHIP	100	5%	1/10W	R2300	1-216-841-11	METAL CHIP	47K	5%	1/10W
R2225	1-216-818-11	METAL CHIP	560	5%	1/10W	R2301	1-216-809-11	METAL CHIP	100	5%	1/10W
R2226	1-216-817-11	METAL CHIP	470	5%	1/10W	R2302	1-216-809-11	METAL CHIP	100	5%	1/10W
R2227	1-216-816-11	METAL CHIP	390	5%	1/10W	R2303	1-216-809-11	METAL CHIP	100	5%	1/10W
R2228	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	R2304	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R2229	1-216-849-11	METAL CHIP	220K	5%	1/10W	R2305	1-216-821-11	METAL CHIP	1K	5%	1/10W
R2230	1-216-841-11	METAL CHIP	47K	5%	1/10W	R2306	1-216-833-11	METAL CHIP	10K	5%	1/10W
R2231	1-216-819-11	METAL CHIP	680	5%	1/10W	R2307	1-216-809-11	METAL CHIP	100	5%	1/10W
R2232	1-216-821-11	METAL CHIP	1K	5%	1/10W	R2308	1-216-809-11	METAL CHIP	100	5%	1/10W
R2233	1-216-821-11	METAL CHIP	1K	5%	1/10W	R2309	1-216-809-11	METAL CHIP	100	5%	1/10W
R2234	1-216-820-11	METAL CHIP	820	5%	1/10W	R2311	1-216-809-11	METAL CHIP	100	5%	1/10W



REF. NO.	PART NO.	DESCRIPTION	VALUES			REF. NO.	PART NO.	DESCRIPTION	VALUES		
R2312	1-216-809-11	METAL CHIP	100	5%	1/10W	R2359	1-216-805-11	METAL CHIP	47	5%	1/10W
R2313	1-216-809-11	METAL CHIP	100	5%	1/10W	R2360	1-216-809-11	METAL CHIP	100	5%	1/10W
R2314	1-216-809-11	METAL CHIP	100	5%	1/10W	R2361	1-216-864-11	SHORT CHIP			
R2315	1-216-809-11	METAL CHIP	100	5%	1/10W	R2362	1-216-805-11	METAL CHIP	47	5%	1/10W
R2316	1-216-809-11	METAL CHIP	100	5%	1/10W	R2363	1-216-841-11	METAL CHIP	47K	5%	1/10W
R2317	1-216-809-11	METAL CHIP	100	5%	1/10W	R2364	1-216-809-11	METAL CHIP	100	5%	1/10W
R2318	1-216-821-11	METAL CHIP	1K	5%	1/10W	R2365	1-216-809-11	METAL CHIP	100	5%	1/10W
R2319	1-216-809-11	METAL CHIP	100	5%	1/10W	R2366	1-216-864-11	SHORT CHIP			
R2320	1-216-809-11	METAL CHIP	100	5%	1/10W	R2367	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R2321	1-216-809-11	METAL CHIP	100	5%	1/10W	R2368	1-216-809-11	METAL CHIP	100	5%	1/10W
R2322	1-216-809-11	METAL CHIP	100	5%	1/10W	R2369	1-216-805-11	METAL CHIP	47	5%	1/10W
R2323	1-216-833-11	METAL CHIP	10K	5%	1/10W	R2370	1-216-833-11	METAL CHIP	10K	5%	1/10W
R2324	1-216-809-11	METAL CHIP	100	5%	1/10W	R2371	1-216-809-11	METAL CHIP	100	5%	1/10W
R2325	1-216-864-11	SHORT CHIP				R2372	1-216-809-11	METAL CHIP	100	5%	1/10W
R2326	1-216-809-11	METAL CHIP	100	5%	1/10W	R2373	1-216-809-11	METAL CHIP	100	5%	1/10W
R2327	1-216-809-11	METAL CHIP	100	5%	1/10W	R2374	1-216-864-11	SHORT CHIP			
R2328	1-216-809-11	METAL CHIP	100	5%	1/10W	R2375	1-216-837-11	METAL CHIP	22K	5%	1/10W
R2329	1-216-815-11	METAL CHIP	330	5%	1/10W	R2376	1-216-805-11	METAL CHIP	47	5%	1/10W
R2330	1-216-817-11	METAL CHIP	470	5%	1/10W	R2377	1-216-833-11	METAL CHIP	10K	5%	1/10W
R2333	1-216-809-11	METAL CHIP	100	5%	1/10W	R2378	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R2335	1-216-820-11	METAL CHIP	820	5%	1/10W	R2379	1-216-821-11	METAL CHIP	1K	5%	1/10W
R2336	1-216-809-11	METAL CHIP	100	5%	1/10W	R2380	1-216-809-11	METAL CHIP	100	5%	1/10W
R2337	1-216-809-11	METAL CHIP	100	5%	1/10W	R2381	1-216-833-11	METAL CHIP	10K	5%	1/10W
R2338	1-216-864-11	SHORT CHIP				R2383	1-216-833-11	METAL CHIP	10K	5%	1/10W
R2339	1-216-809-11	METAL CHIP	100	5%	1/10W	R2384	1-216-833-11	METAL CHIP	10K	5%	1/10W
R2340	1-216-809-11	METAL CHIP	100	5%	1/10W	R2386	1-216-833-11	METAL CHIP	10K	5%	1/10W
R2341	1-216-809-11	METAL CHIP	100	5%	1/10W	R2387	1-216-833-11	METAL CHIP	10K	5%	1/10W
R2342	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	R2388	1-216-815-11	METAL CHIP	330	5%	1/10W
R2343	1-216-833-11	METAL CHIP	10K	5%	1/10W	R2389	1-216-815-11	METAL CHIP	330	5%	1/10W
R2344	1-216-833-11	METAL CHIP	10K	5%	1/10W	R2400	1-216-811-11	METAL CHIP	150	5%	1/10W
R2345	1-216-809-11	METAL CHIP	100	5%	1/10W	R2401	1-216-811-11	METAL CHIP	150	5%	1/10W
R2346	1-218-734-11	METAL CHIP	56K	0.50%	1/10W	R2402	1-216-811-11	METAL CHIP	150	5%	1/10W
R2347	1-216-833-11	METAL CHIP	10K	5%	1/10W	R2419	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R2348	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	R2422	1-216-839-11	METAL CHIP	33K	5%	1/10W
R2349	1-216-833-11	METAL CHIP	10K	5%	1/10W	R2425	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R2350	1-216-809-11	METAL CHIP	100	5%	1/10W	R2428	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R2351	1-216-833-11	METAL CHIP	10K	5%	1/10W	R2434	1-216-821-11	METAL CHIP	1K	5%	1/10W
R2352	1-216-833-11	METAL CHIP	10K	5%	1/10W	R2435	1-216-820-11	METAL CHIP	820	5%	1/10W
R2353	1-216-809-11	METAL CHIP	100	5%	1/10W	R2436	1-216-820-11	METAL CHIP	820	5%	1/10W
R2354	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	R2437	1-216-809-11	METAL CHIP	100	5%	1/10W
R2355	1-216-809-11	METAL CHIP	100	5%	1/10W	R2438	1-216-820-11	METAL CHIP	820	5%	1/10W
R2356	1-216-805-11	METAL CHIP	47	5%	1/10W	R2440	1-216-833-11	METAL CHIP	10K	5%	1/10W
R2357	1-216-833-11	METAL CHIP	10K	5%	1/10W	R2441	1-216-833-11	METAL CHIP	10K	5%	1/10W
R2358	1-216-821-11	METAL CHIP	1K	5%	1/10W	R2450	1-216-864-11	SHORT CHIP			



REF. NO.	PART NO.	DESCRIPTION	VALUES			REF. NO.	PART NO.	DESCRIPTION	VALUES		
R2452	1-216-839-11	METAL CHIP	33K	5%	1/10W	R2519	1-216-857-11	METAL CHIP	1M	5%	1/10W
R2453	1-216-833-11	METAL CHIP	10K	5%	1/10W	R2520	1-216-864-11	SHORT CHIP			
R2454	1-216-809-11	METAL CHIP	100	5%	1/10W	R2521	1-216-864-11	SHORT CHIP			
R2455	1-216-833-11	METAL CHIP	10K	5%	1/10W	R2522	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R2459	1-216-821-11	METAL CHIP	1K	5%	1/10W	R2523	1-216-813-11	METAL CHIP	220	5%	1/10W
R2460	1-216-809-11	METAL CHIP	100	5%	1/10W	R2524	1-216-809-11	METAL CHIP	100	5%	1/10W
R2464	1-216-833-11	METAL CHIP	10K	5%	1/10W	R2525	1-216-813-11	METAL CHIP	220	5%	1/10W
R2466	1-216-833-11	METAL CHIP	10K	5%	1/10W	R2526	1-216-864-11	SHORT CHIP			
R2467	1-216-833-11	METAL CHIP	10K	5%	1/10W	R2528	1-216-809-11	METAL CHIP	100	5%	1/10W
R2469	1-216-809-11	METAL CHIP	100	5%	1/10W	R2529	1-216-809-11	METAL CHIP	100	5%	1/10W
R2470	1-216-833-11	METAL CHIP	10K	5%	1/10W	R2530	1-216-809-11	METAL CHIP	100	5%	1/10W
R2471	1-216-833-11	METAL CHIP	10K	5%	1/10W	R2531	1-216-821-11	METAL CHIP	1K	5%	1/10W
R2472	1-216-833-11	METAL CHIP	10K	5%	1/10W	R2532	1-216-837-11	METAL CHIP	22K	5%	1/10W
R2473	1-216-839-11	METAL CHIP	33K	5%	1/10W	R2533	1-216-864-11	SHORT CHIP			
R2474	1-216-837-11	METAL CHIP	22K	5%	1/10W	R2534	1-216-837-11	METAL CHIP	22K	5%	1/10W
R2480	1-216-845-11	METAL CHIP	100K	5%	1/10W	R2535	1-216-821-11	METAL CHIP	1K	5%	1/10W
R2481	1-216-833-11	METAL CHIP	10K	5%	1/10W	R2536	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R2483	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	R2538	1-216-841-11	METAL CHIP	47K	5%	1/10W
R2484	1-216-841-11	METAL CHIP	47K	5%	1/10W	R2539	1-216-841-11	METAL CHIP	47K	5%	1/10W
R2485	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	R2540	1-216-864-11	SHORT CHIP			
R2486	1-216-839-11	METAL CHIP	33K	5%	1/10W	R2541	1-216-864-11	SHORT CHIP			
R2487	1-216-821-11	METAL CHIP	1K	5%	1/10W	R2542	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R2488	1-216-857-11	METAL CHIP	1M	5%	1/10W	R2543	1-216-864-11	SHORT CHIP			
R2489	1-216-817-11	METAL CHIP	470	5%	1/10W	R2546	1-216-813-11	METAL CHIP	220	5%	1/10W
R2491	1-216-817-11	METAL CHIP	470	5%	1/10W	R2547	1-216-821-11	METAL CHIP	1K	5%	1/10W
R2492	1-216-857-11	METAL CHIP	1M	5%	1/10W	R2548	1-216-841-11	METAL CHIP	47K	5%	1/10W
R2493	1-216-821-11	METAL CHIP	1K	5%	1/10W	R2549	1-216-813-11	METAL CHIP	220	5%	1/10W
R2494	1-216-821-11	METAL CHIP	1K	5%	1/10W	R2550	1-216-821-11	METAL CHIP	1K	5%	1/10W
R2500	1-216-809-11	METAL CHIP	100	5%	1/10W	R2551	1-216-821-11	METAL CHIP	1K	5%	1/10W
R2501	1-216-839-11	METAL CHIP	33K	5%	1/10W	R2552	1-216-809-11	METAL CHIP	100	5%	1/10W
R2502	1-216-864-11	SHORT CHIP				R2553	1-216-853-11	METAL CHIP	470K	5%	1/10W
R2503	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	R2554	1-216-809-11	METAL CHIP	100	5%	1/10W
R2506	1-216-841-11	METAL CHIP	47K	5%	1/10W	R2555	1-216-853-11	METAL CHIP	470K	5%	1/10W
R2508	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	R2556	1-216-821-11	METAL CHIP	1K	5%	1/10W
R2509	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	R2557	1-216-821-11	METAL CHIP	1K	5%	1/10W
R2510	1-216-839-11	METAL CHIP	33K	5%	1/10W	R2558	1-216-833-11	METAL CHIP	10K	5%	1/10W
R2511	1-216-839-11	METAL CHIP	33K	5%	1/10W	R2559	1-216-833-11	METAL CHIP	10K	5%	1/10W
R2512	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	R2560	1-216-833-11	METAL CHIP	10K	5%	1/10W
R2513	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	R2561	1-216-833-11	METAL CHIP	10K	5%	1/10W
R2514	1-216-841-11	METAL CHIP	47K	5%	1/10W	R2562	1-216-833-11	METAL CHIP	10K	5%	1/10W
R2515	1-216-841-11	METAL CHIP	47K	5%	1/10W	R2563	1-216-833-11	METAL CHIP	10K	5%	1/10W
R2516	1-216-839-11	METAL CHIP	33K	5%	1/10W	R2564	1-216-817-11	METAL CHIP	470	5%	1/10W
R2517	1-216-841-11	METAL CHIP	47K	5%	1/10W	R2565	1-216-837-11	METAL CHIP	22K	5%	1/10W
R2518	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	R2566	1-216-837-11	METAL CHIP	22K	5%	1/10W



REF. NO.	PART NO.	DESCRIPTION	VALUES			REF. NO.	PART NO.	DESCRIPTION	VALUES		
R2567	1-216-821-11	METAL CHIP	1K	5%	1/10W	<div>UX</div> <div>* A-1302-217-A UX BOARD, COMPLETE</div> <div>CAPACITOR</div>					
R2568	1-216-837-11	METAL CHIP	22K	5%	1/10W						
R2569	1-216-821-11	METAL CHIP	1K	5%	1/10W						
R2570	1-216-837-11	METAL CHIP	22K	5%	1/10W						
R2571	1-216-821-11	METAL CHIP	1K	5%	1/10W						
R2576	1-216-821-11	METAL CHIP	1K	5%	1/10W						
R2578	1-216-821-11	METAL CHIP	1K	5%	1/10W						
R2580	1-216-821-11	METAL CHIP	1K	5%	1/10W						
R2581	1-216-825-11	METAL CHIP	2.2K	5%	1/10W						
R2582	1-216-809-11	METAL CHIP	100	5%	1/10W						
R2584	1-216-809-11	METAL CHIP	100	5%	1/10W						
R2585	1-216-864-11	SHORT CHIP									
R2593	1-216-864-11	SHORT CHIP									
R2603	1-216-845-11	METAL CHIP	100K	5%	1/10W						
R2604	1-216-845-11	METAL CHIP	100K	5%	1/10W						
R2605	1-216-864-11	SHORT CHIP									
R2607	1-216-821-11	METAL CHIP	1K	5%	1/10W						
R2608	1-216-833-11	METAL CHIP	10K	5%	1/10W						
R2609	1-216-837-11	METAL CHIP	22K	5%	1/10W						
R2610	1-216-837-11	METAL CHIP	22K	5%	1/10W						
R2611	1-216-829-11	METAL CHIP	4.7K	5%	1/10W						
R2612	1-216-829-11	METAL CHIP	4.7K	5%	1/10W						
R2613	1-216-833-11	METAL CHIP	10K	5%	1/10W						
R2614	1-216-809-11	METAL CHIP	100	5%	1/10W						
R2615	1-216-809-11	METAL CHIP	100	5%	1/10W						
R2616	1-216-809-11	METAL CHIP	100	5%	1/10W						
R2617	1-216-809-11	METAL CHIP	100	5%	1/10W						
R2618	1-216-833-11	METAL CHIP	10K	5%	1/10W						
R2619	1-216-833-11	METAL CHIP	10K	5%	1/10W						
CRYSTAL											
X2001	1-567-505-11	OSCILLATOR, CRYSTAL									
X2002	1-567-505-11	OSCILLATOR, CRYSTAL									
X2003	1-781-282-11	VIBRATOR, CERAMIC									
X2200	1-767-606-11	VIBRATOR, CRYSTAL									
X2300	1-795-572-11	VIBRATOR, CRYSTAL									
X2500	1-767-639-21	VIBRATOR, CRYSTAL									



REF. NO.	PART NO.	DESCRIPTION	VALUES			REF. NO.	PART NO.	DESCRIPTION	VALUES
C1541	1-125-837-91	CERAMIC CHIP	1μF	10%	6.3V	D1518	8-719-914-43	DIODE	DAN202K
C1545	1-126-933-11	ELECT	100μF	20%	16V	D1519	8-719-977-28	DIODE	DTZ10B
C1546	1-164-156-11	CERAMIC CHIP	0.1μF		25V	D1520	8-719-977-28	DIODE	DTZ10B
C1548	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V	D1521	8-719-977-28	DIODE	DTZ10B
C1550	1-126-960-11	ELECT	1μF	20%	50V	D1522	8-719-977-28	DIODE	DTZ10B
C1551	1-126-960-11	ELECT	1μF	20%	50V	D1523	8-719-977-28	DIODE	DTZ10B
C1552	1-126-960-11	ELECT	1μF	20%	50V	D1524	8-719-977-28	DIODE	DTZ10B
C1553	1-126-960-11	ELECT	1μF	20%	50V	D1525	8-719-977-28	DIODE	DTZ10B
C1554	1-126-960-11	ELECT	1μF	20%	50V	D1526	8-719-977-28	DIODE	DTZ10B
C1555	1-126-960-11	ELECT	1μF	20%	50V	D1527	8-719-977-28	DIODE	DTZ10B
C1556	1-126-933-11	ELECT	100μF	20%	16V	D1528	8-719-977-28	DIODE	DTZ10B
C1557	1-164-156-11	CERAMIC CHIP	0.1μF		25V	D1529	8-719-977-28	DIODE	DTZ10B
C1558	1-126-933-11	ELECT	100μF	20%	16V	D1530	8-719-977-28	DIODE	DTZ10B
C1559	1-126-933-11	ELECT	100μF	20%	16V	D1531	8-719-977-28	DIODE	DTZ10B
C1560	1-126-933-11	ELECT	100μF	20%	16V	D1532	8-719-977-28	DIODE	DTZ10B
C1561	1-126-933-11	ELECT	100μF	20%	16V	D1533	8-719-977-28	DIODE	DTZ10B
C1562	1-126-933-11	ELECT	100μF	20%	16V	D1534	8-719-977-28	DIODE	DTZ10B
C1563	1-126-933-11	ELECT	100μF	20%	16V	D1535	8-719-977-28	DIODE	DTZ10B
CONNECTOR						IC			
* CN1501	1-764-334-11	PIN, CONNECTOR(PCB)(V TYPE)		11P		IC1502	8-752-080-04	IC	CXA2069Q
CN1502	1-793-173-11	PIN, PC CONNECTOR(PC BOARD)		50P		IC1505	8-759-548-56	IC	M52055FP
CN1503	1-793-419-11	CONNECTOR, BOARD TO BOARD		4P					
DIODE						JACK			
D1501	8-719-977-28	DIODE		DTZ10B		J1501	1-573-967-12	BLOCK, (S) TERMINAL	
D1502	8-719-977-28	DIODE		DTZ10B		J1502	1-750-516-21	JACK BLOCK, PIN	2P
D1503	8-719-977-28	DIODE		DTZ10B		J1503	1-750-517-21	JACK BLOCK, PIN	3P
D1504	8-719-977-28	DIODE		DTZ10B		J1504	1-750-517-21	JACK BLOCK, PIN	3P
D1505	8-719-977-28	DIODE		DTZ10B		J1505	1-764-143-11	JACK	
D1506	8-719-977-28	DIODE		DTZ10B		J1506	1-764-143-11	JACK	
D1507	8-719-977-28	DIODE		DTZ10B		J1507	1-750-516-21	JACK BLOCK, PIN	2P
D1508	8-719-977-28	DIODE		DTZ10B		J1508	1-815-015-11	JACK BLOCK, PIN	
D1509	8-719-977-28	DIODE		DTZ10B		J1509	1-815-015-11	JACK BLOCK, PIN	
D1510	8-719-977-28	DIODE		DTZ10B					
D1511	8-719-977-28	DIODE		DTZ10B		COIL			
D1512	8-719-977-28	DIODE		DTZ10B		L1502	1-469-555-21	INDUCTOR	10μH
D1513	8-719-977-28	DIODE		DTZ10B		L1503	1-469-555-21	INDUCTOR	10μH
D1514	8-719-977-28	DIODE		DTZ10B		L1504	1-469-555-21	INDUCTOR	10μH
D1515	8-719-977-28	DIODE		DTZ10B		L1505	1-469-555-21	INDUCTOR	10μH
D1516	8-719-977-28	DIODE		DTZ10B		L1506	1-469-555-21	INDUCTOR	10μH
D1517	8-719-977-28	DIODE		DTZ10B					



REF. NO.	PART NO.	DESCRIPTION	VALUES			REF. NO.	PART NO.	DESCRIPTION	VALUES		
<u>TRANSISTOR</u>						R1523	1-216-824-11	METAL CHIP	1.8K	5%	1/10W
Q1501	8-729-424-02	TRANSISTOR	2SB709A-QRS-TX			R1524	1-216-809-11	METAL CHIP	100	5%	1/10W
Q1502	8-729-424-02	TRANSISTOR	2SB709A-QRS-TX			R1525	1-216-809-11	METAL CHIP	100	5%	1/10W
Q1503	8-729-424-02	TRANSISTOR	2SB709A-QRS-TX			R1526	1-216-821-11	METAL CHIP	1K	5%	1/10W
Q1504	8-729-424-02	TRANSISTOR	2SB709A-QRS-TX			R1527	1-216-821-11	METAL CHIP	1K	5%	1/10W
Q1505	8-729-422-27	TRANSISTOR	2SD601A-Q			R1530	1-216-809-11	METAL CHIP	100	5%	1/10W
Q1506	8-729-422-27	TRANSISTOR	2SD601A-Q			R1531	1-216-809-11	METAL CHIP	100	5%	1/10W
Q1507	8-729-424-02	TRANSISTOR	2SB709A-QRS-TX			R1532	1-216-809-11	METAL CHIP	100	5%	1/10W
Q1508	8-729-422-27	TRANSISTOR	2SD601A-Q			R1533	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
Q1509	8-729-422-27	TRANSISTOR	2SD601A-Q			R1534	1-216-833-11	METAL CHIP	10K	5%	1/10W
Q1510	8-729-422-27	TRANSISTOR	2SD601A-Q			R1535	1-216-821-11	METAL CHIP	1K	5%	1/10W
Q1511	8-729-424-02	TRANSISTOR	2SB709A-QRS-TX			R1536	1-216-821-11	METAL CHIP	1K	5%	1/10W
Q1512	8-729-424-02	TRANSISTOR	2SB709A-QRS-TX			R1537	1-216-821-11	METAL CHIP	1K	5%	1/10W
Q1513	8-729-422-27	TRANSISTOR	2SD601A-Q			R1538	1-216-806-11	METAL CHIP	56	5%	1/10W
Q1515	8-729-424-02	TRANSISTOR	2SB709A-QRS-TX			R1539	1-216-805-11	METAL CHIP	47	5%	1/10W
Q1516	8-729-422-27	TRANSISTOR	2SD601A-Q			R1540	1-216-809-11	METAL CHIP	100	5%	1/10W
Q1518	8-729-422-27	TRANSISTOR	2SD601A-Q			R1541	1-216-809-11	METAL CHIP	100	5%	1/10W
Q1519	8-729-424-02	TRANSISTOR	2SB709A-QRS-TX			R1542	1-216-830-11	METAL CHIP	5.6K	5%	1/10W
Q1520	8-729-422-27	TRANSISTOR	2SD601A-Q			R1543	1-216-809-11	METAL CHIP	100	5%	1/10W
Q1521	8-729-422-27	TRANSISTOR	2SD601A-Q			R1544	1-216-830-11	METAL CHIP	5.6K	5%	1/10W
Q1522	8-729-424-02	TRANSISTOR	2SB709A-QRS-TX			R1545	1-216-830-11	METAL CHIP	5.6K	5%	1/10W
Q1523	8-729-422-27	TRANSISTOR	2SD601A-Q			R1546	1-216-809-11	METAL CHIP	100	5%	1/10W
Q1524	8-729-422-27	TRANSISTOR	2SD601A-Q			R1547	1-216-830-11	METAL CHIP	5.6K	5%	1/10W
<u>RESISTOR</u>						R1548	1-216-841-11	METAL CHIP	47K	5%	1/10W
R1501	1-216-853-11	METAL CHIP	470K	5%	1/10W	R1549	1-216-809-11	METAL CHIP	100	5%	1/10W
R1502	1-216-853-11	METAL CHIP	470K	5%	1/10W	R1550	1-216-809-11	METAL CHIP	100	5%	1/10W
R1503	1-218-665-11	METAL CHIP	75	0.50%	1/10W	R1551	1-216-853-11	METAL CHIP	470K	5%	1/10W
R1504	1-218-665-11	METAL CHIP	75	0.50%	1/10W	R1552	1-216-821-11	METAL CHIP	1K	5%	1/10W
R1505	1-218-665-11	METAL CHIP	75	0.50%	1/10W	R1554	1-216-809-11	METAL CHIP	100	5%	1/10W
R1506	1-216-853-11	METAL CHIP	470K	5%	1/10W	R1555	1-216-853-11	METAL CHIP	470K	5%	1/10W
R1507	1-216-853-11	METAL CHIP	470K	5%	1/10W	R1556	1-216-853-11	METAL CHIP	470K	5%	1/10W
R1508	1-218-665-11	METAL CHIP	75	0.50%	1/10W	R1557	1-216-830-11	METAL CHIP	5.6K	5%	1/10W
R1509	1-218-665-11	METAL CHIP	75	0.50%	1/10W	R1558	1-216-821-11	METAL CHIP	1K	5%	1/10W
R1510	1-218-665-11	METAL CHIP	75	0.50%	1/10W	R1559	1-218-665-11	METAL CHIP	75	0.50%	1/10W
R1511	1-216-853-11	METAL CHIP	470K	5%	1/10W	R1560	1-216-845-11	METAL CHIP	100K	5%	1/10W
R1512	1-216-853-11	METAL CHIP	470K	5%	1/10W	R1562	1-216-809-11	METAL CHIP	100	5%	1/10W
R1513	1-218-665-11	METAL CHIP	75	0.50%	1/10W	R1563	1-216-830-11	METAL CHIP	5.6K	5%	1/10W
R1514	1-216-821-11	METAL CHIP	1K	5%	1/10W	R1565	1-216-809-11	METAL CHIP	100	5%	1/10W
R1520	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	R1566	1-216-809-11	METAL CHIP	100	5%	1/10W
R1521	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	R1567	1-216-833-11	METAL CHIP	10K	5%	1/10W
R1522	1-216-824-11	METAL CHIP	1.8K	5%	1/10W	R1568	1-216-821-11	METAL CHIP	1K	5%	1/10W
						R1569	1-216-809-11	METAL CHIP	100	5%	1/10W
						R1570	1-216-809-11	METAL CHIP	100	5%	1/10W
						R1571	1-216-809-11	METAL CHIP	100	5%	1/10W



REF. NO.	PART NO.	DESCRIPTION	VALUES			REF. NO.	PART NO.	DESCRIPTION	VALUES		
R1572	1-216-809-11	METAL CHIP	100	5%	1/10W	R1624	1-216-853-11	METAL CHIP	470K	5%	1/10W
R1573	1-216-830-11	METAL CHIP	5.6K	5%	1/10W	R1625	1-218-676-11	METAL CHIP	220	0.50%	1/10W
R1574	1-216-809-11	METAL CHIP	100	5%	1/10W	R1626	1-218-676-11	METAL CHIP	220	0.50%	1/10W
R1575	1-216-809-11	METAL CHIP	100	5%	1/10W	R1627	1-218-676-11	METAL CHIP	220	0.50%	1/10W
R1576	1-216-833-11	METAL CHIP	10K	5%	1/10W	R1628	1-216-853-11	METAL CHIP	470K	5%	1/10W
R1577	1-216-830-11	METAL CHIP	5.6K	5%	1/10W	R1629	1-216-853-11	METAL CHIP	470K	5%	1/10W
R1578	1-216-857-11	METAL CHIP	1M	5%	1/10W	R1630	1-218-676-11	METAL CHIP	220	0.50%	1/10W
R1579	1-216-842-11	METAL CHIP	56K	5%	1/10W	R1631	1-218-676-11	METAL CHIP	220	0.50%	1/10W
R1580	1-216-809-11	METAL CHIP	100	5%	1/10W	R1632	1-218-676-11	METAL CHIP	220	0.50%	1/10W
R1581	1-216-821-11	METAL CHIP	1K	5%	1/10W	R1635	1-216-821-11	METAL CHIP	1K	5%	1/10W
R1582	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	R1636	1-216-821-11	METAL CHIP	1K	5%	1/10W
R1583	1-216-809-11	METAL CHIP	100	5%	1/10W	R1637	1-216-821-11	METAL CHIP	1K	5%	1/10W
R1584	1-216-830-11	METAL CHIP	5.6K	5%	1/10W	R1645	1-216-809-11	METAL CHIP	100	5%	1/10W
R1585	1-216-821-11	METAL CHIP	1K	5%	1/10W	R1646	1-216-803-11	METAL CHIP	33	5%	1/10W
R1586	1-216-813-11	METAL CHIP	220	5%	1/10W	R1647	1-216-803-11	METAL CHIP	33	5%	1/10W
R1587	1-216-809-11	METAL CHIP	100	5%	1/10W	R1648	1-216-803-11	METAL CHIP	33	5%	1/10W
R1588	1-216-830-11	METAL CHIP	5.6K	5%	1/10W	R1649	1-218-676-11	METAL CHIP	220	0.50%	1/10W
R1589	1-216-813-11	METAL CHIP	220	5%	1/10W	R1650	1-218-676-11	METAL CHIP	220	0.50%	1/10W
R1590	1-216-809-11	METAL CHIP	100	5%	1/10W	R1651	1-218-676-11	METAL CHIP	220	0.50%	1/10W
R1591	1-216-813-11	METAL CHIP	220	5%	1/10W	R1652	1-218-676-11	METAL CHIP	220	0.50%	1/10W
R1592	1-216-833-11	METAL CHIP	10K	5%	1/10W	R1653	1-218-676-11	METAL CHIP	220	0.50%	1/10W
R1593	1-216-809-11	METAL CHIP	100	5%	1/10W	R1654	1-218-676-11	METAL CHIP	220	0.50%	1/10W
R1594	1-216-830-11	METAL CHIP	5.6K	5%	1/10W	R1655	1-218-676-11	METAL CHIP	220	0.50%	1/10W
R1595	1-216-830-11	METAL CHIP	5.6K	5%	1/10W	R1656	1-218-676-11	METAL CHIP	220	0.50%	1/10W
R1596	1-216-830-11	METAL CHIP	5.6K	5%	1/10W	R1657	1-218-676-11	METAL CHIP	220	0.50%	1/10W
R1597	1-216-809-11	METAL CHIP	100	5%	1/10W	R1658	1-218-676-11	METAL CHIP	220	0.50%	1/10W
R1598	1-216-830-11	METAL CHIP	5.6K	5%	1/10W	R1659	1-218-676-11	METAL CHIP	220	0.50%	1/10W
R1600	1-216-809-11	METAL CHIP	100	5%	1/10W	R1660	1-218-676-11	METAL CHIP	220	0.50%	1/10W
R1604	1-216-825-11	METAL CHIP	2.2K	5%	1/10W						
R1607	1-216-845-11	METAL CHIP	100K	5%	1/10W						
R1608	1-216-849-11	METAL CHIP	220K	5%	1/10W						
R1609	1-216-833-11	METAL CHIP	10K	5%	1/10W						
R1610	1-216-849-11	METAL CHIP	220K	5%	1/10W						
R1612	1-216-849-11	METAL CHIP	220K	5%	1/10W						
R1613	1-216-845-11	METAL CHIP	100K	5%	1/10W						
R1615	1-216-841-11	METAL CHIP	47K	5%	1/10W						
R1616	1-216-833-11	METAL CHIP	10K	5%	1/10W						
R1617	1-216-845-11	METAL CHIP	100K	5%	1/10W						
R1618	1-216-864-11	SHORT CHIP									
R1619	1-216-809-11	METAL CHIP	100	5%	1/10W						
R1620	1-216-809-11	METAL CHIP	100	5%	1/10W						
R1621	1-216-853-11	METAL CHIP	470K	5%	1/10W						
R1622	1-216-853-11	METAL CHIP	470K	5%	1/10W						
R1623	1-216-853-11	METAL CHIP	470K	5%	1/10W						

VARISTOR

VD1512	1-803-974-21	VARISTOR, CHIP	(1608)
VD1513	1-803-974-21	VARISTOR, CHIP	(1608)
VD1516	1-803-974-21	VARISTOR, CHIP	(1608)



REF. NO.	PART NO.	DESCRIPTION	VALUES	REF. NO.	PART NO.	DESCRIPTION	VALUES
<div> <p>Due to the complexity of this board, performing component level field repairs is not recommended. If service is required, complete board replacement is the preferred repair method. Data is provided for reference only.</p> </div>				<div> <p>FILTER</p> <p>FL7201 1-409-755-11 FERRITE 0μH</p> <p>FL7202 1-409-755-11 FERRITE 0μH</p> <p>FL7203 1-409-755-11 FERRITE 0μH</p> <p>FL7204 1-409-755-11 FERRITE 0μH</p> <p>FL7205 1-409-755-11 FERRITE 0μH</p> </div>			
<p>* A-1302-218-A HMX BOARD, COMPLETE</p>				<p>IC</p> <p>IC7201 6-702-952-01 IC SN65LVDT14PWR</p> <p>IC7203 8-759-698-08 IC SN74CBTLV1G125DCKR</p>			
<p>CAPACITOR</p> <p>C7201 1-124-778-00 ELECT CHIP 22μF 20% 6.3V</p> <p>C7202 1-107-826-11 CERAMIC CHIP 0.1μF 10% 16V</p> <p>C7203 1-107-826-11 CERAMIC CHIP 0.1μF 10% 16V</p> <p>C7204 1-162-970-11 CERAMIC CHIP 0.01μF 10% 25V</p> <p>C7205 1-107-826-11 CERAMIC CHIP 0.1μF 10% 16V</p> <p>C7206 1-162-970-11 CERAMIC CHIP 0.01μF 10% 25V</p> <p>C7207 1-107-826-11 CERAMIC CHIP 0.1μF 10% 16V</p> <p>C7208 1-162-970-11 CERAMIC CHIP 0.01μF 10% 25V</p> <p>C7209 1-107-826-11 CERAMIC CHIP 0.1μF 10% 16V</p> <p>C7210 1-124-778-00 ELECT CHIP 22μF 20% 6.3V</p>				<p>TRANSISTOR</p> <p>Q7201 8-729-424-02 TRANSISTOR 2SB709A-QRS-TX</p> <p>Q7202 8-729-422-27 TRANSISTOR 2SD601A-Q</p> <p>Q7203 8-729-424-02 TRANSISTOR 2SB709A-QRS-TX</p> <p>Q7204 8-729-422-27 TRANSISTOR 2SD601A-Q</p>			
<p>CONNECTOR</p> <p>* CN7201 1-816-124-11 PIN, CONNECTOR (FOR PWB) 18P</p> <p>* CN7202 1-816-402-12 CONNECTOR, MEMORY STICK</p> <p>CN7203 1-695-915-11 TAB (CONTACT)</p>				<p>RESISTOR</p> <p>R7203 1-216-841-11 METAL CHIP 47K 5% 1/10W</p> <p>R7204 1-216-841-11 METAL CHIP 47K 5% 1/10W</p> <p>R7207 1-218-871-11 METAL CHIP 10K 0.50% 1/10W</p> <p>R7210 1-216-841-11 METAL CHIP 47K 5% 1/10W</p> <p>R7219 1-216-809-11 METAL CHIP 100 5% 1/10W</p> <p>R7220 1-216-821-11 METAL CHIP 1K 5% 1/10W</p> <p>R7221 1-216-833-11 METAL CHIP 10K 5% 1/10W</p> <p>R7222 1-216-801-11 METAL CHIP 22 5% 1/10W</p> <p>R7223 1-216-801-11 METAL CHIP 22 5% 1/10W</p> <p>R7224 1-218-692-11 METAL CHIP 1K 0.50% 1/10W</p> <p>R7225 1-216-801-11 METAL CHIP 22 5% 1/10W</p> <p>R7226 1-216-845-11 METAL CHIP 100K 5% 1/10W</p> <p>R7227 1-218-871-11 METAL CHIP 10K 0.50% 1/10W</p> <p>R7228 1-216-837-11 METAL CHIP 22K 5% 1/10W</p> <p>R7230 1-216-801-11 METAL CHIP 22 5% 1/10W</p> <p>R7231 1-216-821-11 METAL CHIP 1K 5% 1/10W</p> <p>R7232 1-216-821-11 METAL CHIP 1K 5% 1/10W</p> <p>R7233 1-216-821-11 METAL CHIP 1K 5% 1/10W</p> <p>R7234 1-216-821-11 METAL CHIP 1K 5% 1/10W</p> <p>R7235 1-216-821-11 METAL CHIP 1K 5% 1/10W</p> <p>R7236 1-216-821-11 METAL CHIP 1K 5% 1/10W</p> <p>R7237 1-216-821-11 METAL CHIP 1K 5% 1/10W</p>			
<p>DIODE</p> <p>D7201 8-719-083-58 DIODE UDZSTE-173.9B</p> <p>D7202 8-719-024-77 DIODE HN1D03FU-TE85L</p> <p>D7203 8-719-024-77 DIODE HN1D03FU-TE85L</p> <p>D7204 8-719-024-77 DIODE HN1D03FU-TE85L</p> <p>D7205 8-719-024-77 DIODE HN1D03FU-TE85L</p> <p>D7206 8-719-024-77 DIODE HN1D03FU-TE85L</p> <p>D7207 6-500-182-01 DIODE L1503CB/D</p> <p>D7208 8-719-024-77 DIODE HN1D03FU-TE85L</p> <p>D7209 8-719-024-77 DIODE HN1D03FU-TE85L</p> <p>D7210 8-719-083-58 DIODE UDZSTE-173.9B</p>							
<p>FERRITE BEAD</p> <p>FB7201 1-414-921-11 FERRITE 0μH</p> <p>FB7202 1-414-921-11 FERRITE 0μH</p> <p>FB7203 1-414-921-11 FERRITE 0μH</p>							



Due to the complexity of this board, performing component level field repairs is not recommended. If service is required, complete board replacement is the preferred repair method.

Data is provided for reference only.

* **A-1302-220-A V BOARD, COMPLETE**

CAPACITOR

C4500	1-164-160-11	CERAMIC CHIP	20pF	5%	50V
C4501	1-164-160-11	CERAMIC CHIP	20pF	5%	50V
C4502	1-124-779-00	ELECT CHIP	10μF	20%	16V
C4503	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V
C4504	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V
C4505	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V
C4506	1-127-692-11	CERAMIC CHIP	10μF	10%	16V
C4507	1-127-692-11	CERAMIC CHIP	10μF	10%	16V
C4508	1-127-692-11	CERAMIC CHIP	10μF	10%	16V
C4509	1-127-692-11	CERAMIC CHIP	10μF	10%	16V
C4510	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V
C4511	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V
C4512	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V
C4513	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V
C4514	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V
C4515	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V
C4516	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V
C4517	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V
C4518	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V
C4519	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V
C4520	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V
C4521	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V
C4522	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V
C4523	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V
C4524	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V
C4525	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V
C4526	1-124-779-00	ELECT CHIP	10μF	20%	16V
C4527	1-127-692-11	CERAMIC CHIP	10μF	10%	16V
C4528	1-127-692-11	CERAMIC CHIP	10μF	10%	16V
C4529	1-127-692-11	CERAMIC CHIP	10μF	10%	16V
C4530	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V
C4531	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V
C4532	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V

C4533	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V
C4534	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V
C4535	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V
C4536	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V
C4537	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V
C4538	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V
C4539	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V
C4540	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V
C4541	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V
C4542	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V
C4543	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V
C4544	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V
C4545	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V
C4547	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V
C4548	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V
C4576	1-124-779-00	ELECT CHIP	10μF	20%	16V
C4577	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V
C4578	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V
C4579	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V
C4580	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V
C4581	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V
C4582	1-124-779-00	ELECT CHIP	10μF	20%	16V
C4583	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V
C4584	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V
C4585	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V
C4586	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V
C4587	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V
C4588	1-124-779-00	ELECT CHIP	10μF	20%	16V
C4589	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V
C4590	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V
C4591	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V
C4592	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V
C4593	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V
C4594	1-124-779-00	ELECT CHIP	10μF	20%	16V
C4595	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V
C4596	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V
C4597	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V
C4598	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V
C4599	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V
C4600	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V
C4601	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V
C4602	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V
C4603	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V
C4604	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V



REF. NO.	PART NO.	DESCRIPTION	VALUES			REF. NO.	PART NO.	DESCRIPTION	VALUES		
C4605	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V	C4710	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V
C4606	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V	C4711	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V
C4607	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V	C4712	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V
C4608	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V	C4713	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V
C4609	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V	C4714	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V
C4610	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V	C4715	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V
C4611	1-124-779-00	ELECT CHIP	10μF	20%	16V	C4716	1-124-779-00	ELECT CHIP	10μF	20%	16V
C4612	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V	C4717	1-124-779-00	ELECT CHIP	10μF	20%	16V
C4613	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V	C4718	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V
C4618	1-124-779-00	ELECT CHIP	10μF	20%	16V	C4719	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V
C4619	1-162-964-11	CERAMIC CHIP	0.001μF	10%	50V	C4720	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V
C4620	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V	C4721	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V
C4621	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V	C4722	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V
C4622	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V	C4723	1-126-603-11	ELECT CHIP	4.7μF	20%	35V
C4623	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V	C4724	1-126-603-11	ELECT CHIP	4.7μF	20%	35V
C4624	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V	C4725	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V
C4625	1-162-927-11	CERAMIC CHIP	100pF	5%	50V	C4726	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V
C4626	1-162-927-11	CERAMIC CHIP	100pF	5%	50V	C4727	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V
C4627	1-162-927-11	CERAMIC CHIP	100pF	5%	50V	C4728	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V
C4628	1-126-206-11	ELECT CHIP	100μF	20%	6.3V	C4729	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V
C4629	1-162-927-11	CERAMIC CHIP	100pF	5%	50V	C4730	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V
C4630	1-162-927-11	CERAMIC CHIP	100pF	5%	50V	C4731	1-162-919-11	CERAMIC CHIP	22pF	5%	50V
C4631	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V	C4800	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V
C4632	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V	C4801	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V
C4633	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V	C4803	1-162-964-11	CERAMIC CHIP	0.001μF	10%	50V
C4634	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V	C4804	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V
C4635	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V	C4805	1-162-964-11	CERAMIC CHIP	0.001μF	10%	50V
C4640	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V	C4806	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V
C4657	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V	C4807	1-162-964-11	CERAMIC CHIP	0.001μF	10%	50V
C4658	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V	C4808	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V
C4659	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V	C4809	1-127-760-11	CERAMIC CHIP	4.7μF	10%	6.3V
C4660	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V	C4810	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V
C4661	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V	C4811	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V
C4662	1-164-677-11	CERAMIC CHIP	0.033μF	10%	16V	C4812	1-119-667-11	CERAMIC CHIP	22μF		10V
C4700	1-127-692-11	CERAMIC CHIP	10μF	10%	16V	C4813	1-119-667-11	CERAMIC CHIP	22μF		10V
C4701	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V	C4814	1-119-667-11	CERAMIC CHIP	22μF		10V
C4702	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V	C4815	1-135-941-11	CERAMIC CHIP	22μF	10%	6.3V
C4703	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V	C4816	1-135-941-11	CERAMIC CHIP	22μF	10%	6.3V
C4704	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V	C4817	1-135-941-11	CERAMIC CHIP	22μF	10%	6.3V
C4705	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V	C4819	1-162-964-11	CERAMIC CHIP	0.001μF	10%	50V
C4706	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V	C4820	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V
C4707	1-126-603-11	ELECT CHIP	4.7μF	20%	35V	C4821	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V
C4708	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V	C4822	1-127-675-91	CERAMIC CHIP	22μF	10%	10V
C4709	1-126-603-11	ELECT CHIP	4.7μF	20%	35V	C4823	1-127-675-91	CERAMIC CHIP	22μF	10%	10V

— 119 —





REF. NO.	PART NO.	DESCRIPTION	VALUES			REF. NO.	PART NO.	DESCRIPTION	VALUES														
IC4700	6-704-640-01	IC	PNX8511HW/B1			R4509	1-216-805-11	METAL CHIP	47	5%	1/10W												
IC4800	8-759-597-57	IC	LTC1628CG#TR			R4510	1-216-809-11	METAL CHIP	100	5%	1/10W												
IC4802	8-729-043-78	TRANSISTOR	IRF7311TR			R4511	1-216-864-11	SHORT CHIP															
IC4803	8-729-043-78	TRANSISTOR	IRF7311TR			R4512	1-216-833-11	METAL CHIP	10K	5%	1/10W												
IC4804	6-700-599-01	IC	TC7SA08FU(TE85R)			R4513	1-216-805-11	METAL CHIP	47	5%	1/10W												
COIL						R4514	1-216-805-11	METAL CHIP	47	5%	1/10W												
						R4515	1-216-805-11	METAL CHIP	47	5%	1/10W												
						R4516	1-216-801-11	METAL CHIP	22	5%	1/10W												
						L4500	1-419-370-21	INDUCTOR	0μH			R4517	1-216-805-11	METAL CHIP	47	5%	1/10W						
						L4501	1-419-370-21	INDUCTOR	0μH			R4518	1-216-829-11	METAL CHIP	4.7K	5%	1/10W						
						L4502	1-419-370-21	INDUCTOR	0μH														
						L4503	1-419-370-21	INDUCTOR	0μH			R4519	1-216-809-11	METAL CHIP	100	5%	1/10W						
						L4504	1-419-370-21	INDUCTOR	0μH			R4520	1-216-809-11	METAL CHIP	100	5%	1/10W						
												R4521	1-216-805-11	METAL CHIP	47	5%	1/10W						
						L4505	1-216-295-91	SHORT CHIP				R4522	1-216-805-11	METAL CHIP	47	5%	1/10W						
						L4506	1-164-004-11	CERAMIC CHIP	0.1μF	10%	25V	R4523	1-216-805-11	METAL CHIP	47	5%	1/10W						
						L4507	1-164-004-11	CERAMIC CHIP	0.1μF	10%	25V												
						L4508	1-164-004-11	CERAMIC CHIP	0.1μF	10%	25V	R4524	1-216-829-11	METAL CHIP	4.7K	5%	1/10W						
						L4509	1-469-555-21	INDUCTOR	10μH			R4525	1-216-805-11	METAL CHIP	47	5%	1/10W						
												R4526	1-216-829-11	METAL CHIP	4.7K	5%	1/10W						
						L4703	1-216-295-91	SHORT CHIP				R4527	1-216-829-11	METAL CHIP	4.7K	5%	1/10W						
						L4704	1-216-295-91	SHORT CHIP				R4528	1-216-833-11	METAL CHIP	10K	5%	1/10W						
						L4705	1-216-295-91	SHORT CHIP															
						L4706	1-216-295-91	SHORT CHIP				R4529	1-216-864-11	SHORT CHIP									
						L4800	1-419-491-21	INDUCTOR	10μH			R4530	1-216-833-11	METAL CHIP	10K	5%	1/10W						
												R4531	1-216-833-11	METAL CHIP	10K	5%	1/10W						
						L4801	1-419-491-21	INDUCTOR	10μH			R4532	1-216-809-11	METAL CHIP	100	5%	1/10W						
						L4802	1-419-491-21	INDUCTOR	10μH			R4535	1-216-864-11	SHORT CHIP									
						L4803	1-216-295-91	SHORT CHIP															
						TRANSISTOR						R4536	1-216-809-11	METAL CHIP	100	5%	1/10W						
												R4539	1-216-833-11	METAL CHIP	10K	5%	1/10W						
												R4540	1-216-864-11	SHORT CHIP									
												R4541	1-216-833-11	METAL CHIP	10K	5%	1/10W						
												R4546	1-216-845-11	METAL CHIP	100K	5%	1/10W						
												Q4506	8-729-422-27	TRANSISTOR	2SD601A-Q			R4547	1-216-835-11	METAL CHIP	15K	5%	1/10W
												Q4507	8-729-422-27	TRANSISTOR	2SD601A-Q			R4548	1-216-835-11	METAL CHIP	15K	5%	1/10W
						Q4508	8-729-422-27	TRANSISTOR	2SD601A-Q			R4549	1-216-835-11	METAL CHIP	15K	5%	1/10W						
						Q4509	8-729-422-27	TRANSISTOR	2SD601A-Q			R4550	1-216-835-11	METAL CHIP	15K	5%	1/10W						
						Q4510	8-729-424-02	TRANSISTOR	2SB709A-QRS-TX			R4551	1-216-833-11	METAL CHIP	10K	5%	1/10W						
						RESISTOR																	
												R4501	1-216-857-11	METAL CHIP	1M	5%	1/10W	R4553	1-216-864-11	SHORT CHIP			
												R4502	1-216-805-11	METAL CHIP	47	5%	1/10W	R4554	1-216-805-11	METAL CHIP	47	5%	1/10W
												R4503	1-216-805-11	METAL CHIP	47	5%	1/10W	R4555	1-216-864-11	SHORT CHIP			
												R4504	1-216-805-11	METAL CHIP	47	5%	1/10W	R4556	1-216-864-11	SHORT CHIP			
R4505	1-216-805-11	METAL CHIP	47	5%	1/10W							R4557	1-216-833-11	METAL CHIP	10K	5%	1/10W						
R4506	1-216-805-11	METAL CHIP	47	5%	1/10W							R4559	1-216-821-11	METAL CHIP	1K	5%	1/10W						
R4507	1-216-805-11	METAL CHIP	47	5%	1/10W							R4560	1-216-864-11	SHORT CHIP									
R4508	1-216-805-11	METAL CHIP	47	5%	1/10W							R4561	1-216-821-11	METAL CHIP	1K	5%	1/10W						







REF. NO.	PART NO.	DESCRIPTION	VALUES			REF. NO.	PART NO.	DESCRIPTION	VALUES		
R4562	1-216-821-11	METAL CHIP	1K	5%	1/10W	R4725	1-216-864-11	SHORT CHIP			
R4563	1-216-821-11	METAL CHIP	1K	5%	1/10W	R4726	1-216-841-11	METAL CHIP	47K	5%	1/10W
R4564	1-216-821-11	METAL CHIP	1K	5%	1/10W	R4727	1-216-841-11	METAL CHIP	47K	5%	1/10W
R4565	1-216-821-11	METAL CHIP	1K	5%	1/10W	R4731	1-216-864-11	SHORT CHIP			
R4567	1-216-809-11	METAL CHIP	100	5%	1/10W	R4732	1-216-864-11	SHORT CHIP			
R4568	1-216-809-11	METAL CHIP	100	5%	1/10W	R4733	1-216-864-11	SHORT CHIP			
R4585	1-216-864-11	SHORT CHIP				R4734	1-216-809-11	METAL CHIP	100	5%	1/10W
R4586	1-216-809-11	METAL CHIP	100	5%	1/10W	R4735	1-216-809-11	METAL CHIP	100	5%	1/10W
R4587	1-216-809-11	METAL CHIP	100	5%	1/10W	R4736	1-216-809-11	METAL CHIP	100	5%	1/10W
R4588	1-216-864-11	SHORT CHIP				R4737	1-216-809-11	METAL CHIP	100	5%	1/10W
R4589	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	R4738	1-216-809-11	METAL CHIP	100	5%	1/10W
R4590	1-216-833-11	METAL CHIP	10K	5%	1/10W	R4739	1-216-809-11	METAL CHIP	100	5%	1/10W
R4592	1-216-833-11	METAL CHIP	10K	5%	1/10W	R4742	1-216-864-11	SHORT CHIP			
R4594	1-216-833-11	METAL CHIP	10K	5%	1/10W	R4747	1-216-864-11	SHORT CHIP			
R4595	1-216-833-11	METAL CHIP	10K	5%	1/10W	R4749	1-218-665-11	METAL CHIP	75	0.50%	1/10W
R4597	1-216-864-11	SHORT CHIP				R4751	1-216-864-11	SHORT CHIP			
R4599	1-216-864-11	SHORT CHIP				R4752	1-216-864-11	SHORT CHIP			
R4600	1-216-809-11	METAL CHIP	100	5%	1/10W	R4757	1-218-665-11	METAL CHIP	75	0.50%	1/10W
R4601	1-216-809-11	METAL CHIP	100	5%	1/10W	R4758	1-216-864-11	SHORT CHIP			
R4602	1-216-809-11	METAL CHIP	100	5%	1/10W	R4760	1-216-864-11	SHORT CHIP			
R4603	1-216-809-11	METAL CHIP	100	5%	1/10W	R4765	1-218-665-11	METAL CHIP	75	0.50%	1/10W
R4604	1-216-809-11	METAL CHIP	100	5%	1/10W	R4766	1-414-229-11	FERRITE	0μH		
R4605	1-216-864-11	SHORT CHIP				R4768	1-414-229-11	FERRITE	0μH		
R4606	1-216-864-11	SHORT CHIP				R4769	1-414-229-11	FERRITE	0μH		
R4607	1-216-864-11	SHORT CHIP				R4774	1-414-229-11	FERRITE	0μH		
R4609	1-216-809-11	METAL CHIP	100	5%	1/10W	R4775	1-414-229-11	FERRITE	0μH		
R4610	1-216-809-11	METAL CHIP	100	5%	1/10W	R4777	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V
R4611	1-216-809-11	METAL CHIP	100	5%	1/10W	R4778	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V
R4612	1-216-809-11	METAL CHIP	100	5%	1/10W	R4779	1-162-927-11	CERAMIC CHIP	100pF	5%	50V
R4700	1-216-833-11	METAL CHIP	10K	5%	1/10W	R4781	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V
R4701	1-216-833-11	METAL CHIP	10K	5%	1/10W	R4782	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V
R4702	1-216-833-11	METAL CHIP	10K	5%	1/10W	R4783	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V
R4705	1-216-833-11	METAL CHIP	10K	5%	1/10W	R4784	1-216-864-11	SHORT CHIP			
R4709	1-218-446-11	METAL CHIP	1	5%	1/10W	R4785	1-216-864-11	SHORT CHIP			
R4710	1-218-271-11	METAL CHIP	2K	5%	1/10W	R4786	1-216-864-11	SHORT CHIP			
R4711	1-218-446-11	METAL CHIP	1	5%	1/10W	R4787	1-216-864-11	SHORT CHIP			
R4713	1-216-833-11	METAL CHIP	10K	5%	1/10W	R4788	1-216-864-11	SHORT CHIP			
R4714	1-218-271-11	METAL CHIP	2K	5%	1/10W	R4800	1-216-857-11	METAL CHIP	1M	5%	1/10W
R4718	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	R4801	1-218-736-11	METAL CHIP	68K	0.50%	1/10W
R4719	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	R4802	1-216-841-11	METAL CHIP	47K	5%	1/10W
R4720	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	R4803	1-216-837-11	METAL CHIP	22K	5%	1/10W
R4722	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	R4804	1-216-835-11	METAL CHIP	15K	5%	1/10W
R4723	1-216-809-11	METAL CHIP	100	5%	1/10W	R4805	1-216-835-11	METAL CHIP	15K	5%	1/10W
R4724	1-216-809-11	METAL CHIP	100	5%	1/10W	R4806	1-216-837-11	METAL CHIP	22K	5%	1/10W

REF. NO.	PART NO.	DESCRIPTION	VALUES		
R4807	1-216-797-11	METAL CHIP	10	5%	1/10W
R4808	1-216-864-11	SHORT CHIP			
R4809	1-216-864-11	SHORT CHIP			
R4810	1-216-864-11	SHORT CHIP			
R4811	1-216-864-11	SHORT CHIP			
R4815	1-220-851-21	RES-CHIP	0.015	1%	1W
R4816	1-218-736-11	METAL CHIP	68K	0.50%	1/10W
R4818	1-216-857-11	METAL CHIP	1M	5%	1/10W
R4819	1-220-851-21	RES-CHIP	0.015	1%	1W
R4834	1-216-833-11	METAL CHIP	10K	5%	1/10W
R4835	1-216-833-11	METAL CHIP	10K	5%	1/10W
R4836	1-216-833-11	METAL CHIP	10K	5%	1/10W
R4837	1-216-833-11	METAL CHIP	10K	5%	1/10W
R4838	1-216-833-11	METAL CHIP	10K	5%	1/10W
R4839	1-216-833-11	METAL CHIP	10K	5%	1/10W
R4840	1-216-833-11	METAL CHIP	10K	5%	1/10W
R4841	1-216-805-11	METAL CHIP	47	5%	1/10W
R4842	1-216-864-11	SHORT CHIP			
R4843	1-216-805-11	METAL CHIP	47	5%	1/10W
<u>RESISTOR BRIDGE</u>					
RB4500	1-234-378-21	RES, NETWORK 10KX4		(1005)	
RB4505	1-234-372-21	RES, NETWORK 100X4		(1005)	
RB4506	1-234-371-21	RES, NETWORK 47X4		(1005)	
RB4507	1-234-371-21	RES, NETWORK 47X4		(1005)	
RB4510	1-234-371-21	RES, NETWORK 47X4		(1005)	
RB4512	1-234-371-21	RES, NETWORK 47X4		(1005)	
RB4513	1-234-377-21	RES, NETWORK 4.7KX4		(1005)	
RB4514	1-234-377-21	RES, NETWORK 4.7KX4		(1005)	
RB4516	1-234-377-21	RES, NETWORK 4.7KX4		(1005)	
RB4517	1-234-377-21	RES, NETWORK 4.7KX4		(1005)	
RB4518	1-234-377-21	RES, NETWORK 4.7KX4		(1005)	
RB4519	1-234-377-21	RES, NETWORK 4.7KX4		(1005)	
RB4520	1-242-963-21	RES, NETWORK 33X4		(1005)	
RB4530	1-242-963-21	RES, NETWORK 33X4		(1005)	
RB4533	1-234-371-21	RES, NETWORK 47X4		(1005)	
RB4534	1-234-371-21	RES, NETWORK 47X4		(1005)	
RB4535	1-234-371-21	RES, NETWORK 47X4		(1005)	
RB4536	1-234-371-21	RES, NETWORK 47X4		(1005)	
RB4537	1-234-371-21	RES, NETWORK 47X4		(1005)	
RB4538	1-234-371-21	RES, NETWORK 47X4		(1005)	
RB4539	1-234-371-21	RES, NETWORK 47X4		(1005)	
RB4540	1-234-371-21	RES, NETWORK 47X4		(1005)	
REF. NO.	PART NO.	DESCRIPTION	VALUES		
RB4541	1-242-963-21	RES, NETWORK 33X4		(1005)	
RB4542	1-234-371-21	RES, NETWORK 47X4		(1005)	
RB4543	1-242-963-21	RES, NETWORK 33X4		(1005)	
RB4544	1-234-371-21	RES, NETWORK 47X4		(1005)	
RB4545	1-242-963-21	RES, NETWORK 33X4		(1005)	
RB4546	1-234-371-21	RES, NETWORK 47X4		(1005)	
RB4547	1-242-963-21	RES, NETWORK 33X4		(1005)	
RB4548	1-234-371-21	RES, NETWORK 47X4		(1005)	
RB4549	1-242-963-21	RES, NETWORK 33X4		(1005)	
RB4550	1-234-371-21	RES, NETWORK 47X4		(1005)	
RB4551	1-242-963-21	RES, NETWORK 33X4		(1005)	
RB4552	1-234-371-21	RES, NETWORK 47X4		(1005)	
RB4553	1-242-963-21	RES, NETWORK 33X4		(1005)	
RB4554	1-234-371-21	RES, NETWORK 47X4		(1005)	
RB4556	1-234-371-21	RES, NETWORK 47X4		(1005)	
RB4557	1-234-371-21	RES, NETWORK 47X4		(1005)	
RB4558	1-234-371-21	RES, NETWORK 47X4		(1005)	
RB4559	1-234-371-21	RES, NETWORK 47X4		(1005)	
RB4560	1-234-371-21	RES, NETWORK 47X4		(1005)	
RB4561	1-234-371-21	RES, NETWORK 47X4		(1005)	
RB4562	1-234-371-21	RES, NETWORK 47X4		(1005)	
RB4563	1-234-378-21	RES, NETWORK 10KX4		(1005)	
RB4564	1-234-371-21	RES, NETWORK 47X4		(1005)	
RB4566	1-234-378-21	RES, NETWORK 10KX4		(1005)	
RB4567	1-234-378-21	RES, NETWORK 10KX4		(1005)	
RB4568	1-234-378-21	RES, NETWORK 10KX4		(1005)	
RB4569	1-236-908-11	NETWORK RESISTOR(CHIP)		10K	
RB4570	1-236-908-11	NETWORK RESISTOR(CHIP)		10K	
RB4571	1-236-908-11	NETWORK RESISTOR(CHIP)		10K	
RB4700	1-234-378-21	RES, NETWORK 10KX4		(1005)	
<u>SWITCH</u>					
S4500	1-572-595-11	SWITCH, TACTILE			
<u>CRYSTAL</u>					
X4500	1-781-653-21	VIBRATOR, CRYSTAL			

NOTE: The components identified by shading and  mark are critical for safety. Replace only with part number specified.

NOTE: Les composants identifiés par un trame et une marque  sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.



REF. NO.	PART NO.	DESCRIPTION	VALUES	REF. NO.	PART NO.	DESCRIPTION	VALUES
	*	A-1302-219-A D BOARD, COMPLETE (KV-34XBR910 ONLY)		C5033	1-130-495-00	MYLAR	0.1μF 5% 50V
	*	A-1302-222-A D BOARD, COMPLETE (KV-30XBR910 ONLY)		C5035	1-104-665-11	ELECT	100μF 20% 25V
		3-710-578-01 COVER, VOLUME, 6 MOLD		C5036	1-126-941-11	ELECT	470μF 20% 25V
		4-382-854-01 SCREW (M3X8), P, SW (+)		C5039	1-164-227-11	CERAMIC CHIP	0.022μF 10% 25V
		4-382-854-21 SCREW (M3X14), P, SW (+)		C5040	1-126-935-11	ELECT	470μF 20% 16V
The high-voltage leads associated with the FBT 's on these D boards are not included and must be ordered separately. Order the following leads when requesting these D boards:				C5041	1-126-935-11	ELECT	470μF 20% 16V
	1-251-715-22	CAP ASSY, HIGH-VOLTAGE		C5044	1-164-360-11	CERAMIC CHIP	0.1μF 16V
	1-900-805-19	WIRE ASSY, FOCUS HV		C5045	1-164-360-11	CERAMIC CHIP	0.1μF 16V
	1-900-805-22	CONNECTOR ASSY, G2 HV		C5046	1-162-971-11	CERAMIC CHIP	0.001μF 10% 50V
				C5047	1-162-971-11	CERAMIC CHIP	0.001μF 10% 50V
				C5048	1-162-953-11	CERAMIC CHIP	100pF 5% 50V
				C5049	1-162-964-11	CERAMIC CHIP	0.001μF 10% 50V
				C5050	1-162-970-11	CERAMIC CHIP	0.01μF 10% 25V
				C5051	1-164-360-11	CERAMIC CHIP	0.1μF 16V
				C5052	1-126-947-11	ELECT	47μF 20% 35V
				C5053	1-106-220-00	MYLAR	0.1μF 10% 100V
				C5054	1-104-666-11	ELECT	220μF 20% 25V
				C5056	1-162-318-11	CERAMIC	0.001μF 10% 500V
				C5058	1-162-116-00	CERAMIC	680pF 10% 2KV
				C5059	1-162-116-00	CERAMIC	680pF 10% 2KV
				C5060	1-137-417-11	MYLAR	0.015μF 10% 100V
				C5061	1-117-833-21	FILM	5100pF 3% 1.5KV
				C5064	1-117-665-11	FILM	0.33μF 5% 250V
				C5065	1-117-664-11	FILM	0.27μF 5% 250V
					(KV-30XBR910 ONLY)		
				C5065	1-117-665-11	FILM	0.33μF 5% 250V
					(KV-34XBR910 ONLY)		
				C5066	1-109-921-11	CERAMIC	0.0015μF 10% 500V
				C5070	1-107-826-11	CERAMIC CHIP	0.1μF 10% 16V
				C5071	1-107-826-11	CERAMIC CHIP	0.1μF 10% 16V
				C5074	1-162-966-11	CERAMIC CHIP	0.0022μF 10% 50V
				C5075	1-107-826-11	CERAMIC CHIP	0.1μF 10% 16V
				C5076	1-107-826-11	CERAMIC CHIP	0.1μF 10% 16V
				C5077	1-164-360-11	CERAMIC CHIP	0.1μF 16V
				C5078	1-127-715-91	CERAMIC CHIP	0.22μF 10% 16V
				C5079	1-162-965-11	CERAMIC CHIP	0.0015μF 10% 50V
				C5082	1-117-832-21	FILM	4700pF 3% 1.5KV
					(KV-30XBR910 ONLY)		
				C5082	1-117-834-21	FILM	5600pF 3% 1.5KV
					(KV-34XBR910 ONLY)		
				C5084	1-126-941-11	ELECT	470μF 20% 25V
				C5086	1-126-941-11	ELECT	470μF 20% 25V
				C5502	1-126-941-11	ELECT	470μF 20% 25V
C5001	1-162-966-11	CERAMIC CHIP	0.0022μF 10% 50V				
C5002	1-106-383-00	MYLAR	0.047μF 10% 200V				
C5003	1-162-967-11	CERAMIC CHIP	0.0033μF 10% 50V				
C5004	1-106-383-00	MYLAR	0.047μF 10% 200V				
C5005	1-126-235-11	ELECT	100μF 20% 16V				
C5006	1-126-964-11	ELECT	10μF 20% 50V				
C5007	1-126-941-11	ELECT	470μF 20% 25V				
C5009	1-126-941-11	ELECT	470μF 20% 25V				
C5010	1-164-227-11	CERAMIC CHIP	0.022μF 10% 25V				
C5011	1-107-641-11	ELECT	220μF 20% 160V				
C5012	1-162-968-11	CERAMIC CHIP	0.0047μF 10% 50V				
C5013	1-162-966-11	CERAMIC CHIP	0.0022μF 10% 50V				
C5014	1-164-227-11	CERAMIC CHIP	0.022μF 10% 25V				
C5016	1-136-171-00	FILM	0.33μF 5% 50V				
C5017	1-164-677-11	CERAMIC CHIP	0.033μF 10% 16V				
C5018	1-162-970-11	CERAMIC CHIP	0.01μF 10% 25V				
C5019	1-126-968-11	ELECT	100μF 20% 50V				
C5020	1-104-665-11	ELECT	100μF 20% 25V				
C5022	1-162-968-11	CERAMIC CHIP	0.0047μF 10% 50V				
C5024	1-102-038-00	CERAMIC	0.001μF 500V				
C5028	1-127-715-91	CERAMIC CHIP	0.22μF 10% 16V				
C5029	1-115-349-51	CERAMIC	0.01μF 2KV				
C5030	1-137-365-11	MYLAR	0.0015μF 5% 50V				
C5031	1-162-965-11	CERAMIC CHIP	0.0015μF 10% 50V				
C5032	1-165-176-11	CERAMIC CHIP	0.047μF 10% 16V				

NOTE: The components identified by shading and \triangle mark are critical for safety. Replace only with part number specified.

NOTE: Les composants identifiés par un trame et une marque \triangle sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.





REF. NO.	PART NO.	DESCRIPTION	VALUES			REF. NO.	PART NO.	DESCRIPTION	VALUES		
C5504	1-126-947-11	ELECT	47 μ F	20%	35V	C6517	1-126-963-11	ELECT	4.7 μ F	20%	50V
C5505	1-162-970-11	CERAMIC CHIP	0.01 μ F	10%	25V	C6518	1-136-479-11	FILM	0.001 μ F	5%	100V
C5506	1-162-962-11	CERAMIC CHIP	470pF	10%	50V	C6519	1-126-964-11	ELECT	10 μ F	20%	50V
C5511	1-162-970-11	CERAMIC CHIP	0.01 μ F	10%	25V	C6525	1-125-969-91	CERAMIC	680pF	10%	1KV
C5512	1-162-974-11	CERAMIC CHIP	0.01 μ F		50V	C6526	1-125-969-91	CERAMIC	680pF	10%	1KV
C5513	1-162-974-11	CERAMIC CHIP	0.01 μ F		50V	C6532	1-137-741-22	FILM	39000pF	3%	800V
C5514	1-107-826-11	CERAMIC CHIP	0.1 μ F	10%	16V	C6546	1-126-974-11	ELECT	3300 μ F	20%	50V
C5515	1-162-970-11	CERAMIC CHIP	0.01 μ F	10%	25V	C6549	1-126-969-11	ELECT	220 μ F	20%	50V
C5516	1-162-970-11	CERAMIC CHIP	0.01 μ F	10%	25V	C6550	1-126-968-11	ELECT	100 μ F	20%	50V
C5517	1-129-716-00	FILM	0.015 μ F	5%	400V	C6551	1-164-227-11	CERAMIC CHIP	0.022 μ F	10%	25V
C5518	1-162-970-11	CERAMIC CHIP	0.01 μ F	10%	25V	C6552	1-126-937-11	ELECT	4700 μ F	20%	16V
C5519	1-162-927-11	CERAMIC CHIP	100pF	5%	50V	C6554	1-126-937-11	ELECT	4700 μ F	20%	16V
C5520	1-107-826-11	CERAMIC CHIP	0.1 μ F	10%	16V	C6555	1-104-665-11	ELECT	100 μ F	20%	25V
C5521	1-162-970-11	CERAMIC CHIP	0.01 μ F	10%	25V	C6556	1-123-024-21	ELECT	33 μ F		160V
C5522	1-115-416-11	CERAMIC CHIP	0.001 μ F	5%	25V	C6557	1-107-654-11	ELECT	33 μ F	20%	250V
C5523	1-162-970-11	CERAMIC CHIP	0.01 μ F	10%	25V	C6558	1-126-967-11	ELECT	47 μ F	20%	50V
C5524	1-107-826-11	CERAMIC CHIP	0.1 μ F	10%	16V	C6559	1-126-942-61	ELECT	1000 μ F	20%	25V
C5526	1-162-967-11	CERAMIC CHIP	0.0033 μ F	10%	50V	C6584	1-165-528-11	MYLAR	0.1 μ F	10	275V
C5527	1-162-970-11	CERAMIC CHIP	0.01 μ F	10%	25V	C6590	1-131-940-11	ELECT	1200 μ F	20%	250V
C5528	1-129-709-91	FILM	0.0039 μ F	5%	630V	\triangle C6592	1-119-898-51	CERAMIC	470pF	10%	250V
C5529	1-162-970-11	CERAMIC CHIP	0.01 μ F	10%	25V	C6593	1-126-768-11	ELECT	2200 μ F	20%	16V
C5530	1-136-167-00	FILM	0.15 μ F	5%	50V	C6595	1-104-666-11	ELECT	220 μ F	20%	25V
C5531	1-130-495-00	MYLAR	0.1 μ F	5%	50V	C6596	1-126-960-11	ELECT	1 μ F	20%	50V
C5533	1-126-961-11	ELECT	2.2 μ F	20%	50V	C6597	1-126-943-11	ELECT	2200 μ F	20%	25V
C5534	1-126-947-11	ELECT	47 μ F	20%	35V	C8001	1-126-964-11	ELECT	10 μ F	20%	50V
C5535	1-126-947-11	ELECT	47 μ F	20%	35V	C8002	1-126-964-11	ELECT	10 μ F	20%	50V
C5540	1-162-964-11	CERAMIC CHIP	0.001 μ F	10%	50V	C8003	1-162-970-11	CERAMIC CHIP	0.01 μ F	10%	25V
C5548	1-137-194-81	FILM	0.47 μ F	5%	50V	C8005	1-107-826-11	CERAMIC CHIP	0.1 μ F	10%	16V
C5550	1-107-826-11	CERAMIC CHIP	0.1 μ F	10%	16V	C8006	1-126-960-11	ELECT	1 μ F	20%	50V
C5551	1-126-947-11	ELECT	47 μ F	20%	35V	C8007	1-162-971-11	CERAMIC CHIP	0.001 μ F	10%	50V
C5552	1-126-947-11	ELECT	47 μ F	20%	35V	C8012	1-126-947-11	ELECT	47 μ F	20%	35V
C5598	1-126-947-11	ELECT	47 μ F	20%	35V	C8015	1-126-947-11	ELECT	47 μ F	20%	35V
C5609	1-104-665-11	ELECT	100 μ F	20%	25V	C8016	1-130-495-00	MYLAR	0.1 μ F	5%	50V
C5623	1-104-665-11	ELECT	100 μ F	20%	25V	C8017	1-126-964-11	ELECT	10 μ F	20%	50V
C6502	1-162-964-11	CERAMIC CHIP	0.001 μ F	10%	50V	C8018	1-126-964-11	ELECT	10 μ F	20%	50V
C6503	1-131-940-11	ELECT	1200 μ F	20%	250V	C8020	1-130-495-00	MYLAR	0.1 μ F	5%	50V
C6507	1-130-495-00	MYLAR	0.1 μ F	5%	50V	C8021	1-162-971-11	CERAMIC CHIP	0.001 μ F	10%	50V
C6508	1-126-947-11	ELECT	47 μ F	20%	35V	C8024	1-126-967-11	ELECT	47 μ F	20%	50V
C6510	1-130-495-00	MYLAR	0.1 μ F	5%	50V	C8025	1-126-947-11	ELECT	47 μ F	20%	35V
C6511	1-162-970-11	CERAMIC CHIP	0.01 μ F	10%	25V	C8027	1-130-495-00	MYLAR	0.1 μ F	5%	50V
C6513	1-126-940-11	ELECT	330 μ F	20%	25V	C8028	1-162-966-11	CERAMIC CHIP	0.0022 μ F	10%	50V
C6514	1-126-767-11	ELECT	1000 μ F	20%	16V	C8030	1-165-176-11	CERAMIC CHIP	0.047 μ F	10%	16V
C6515	1-107-826-11	CERAMIC CHIP	0.1 μ F	10%	16V	C8031	1-128-551-11	ELECT	22 μ F	20%	63V
C6516	1-162-964-11	CERAMIC CHIP	0.001 μ F	10%	50V	C8032	1-136-813-11	FILM	680pF	5%	100V




REF. NO.	PART NO.	DESCRIPTION	VALUES			REF. NO.	PART NO.	DESCRIPTION	VALUES
C8033	1-126-964-11	ELECT	10μF	20%	50V	DIODE			
C8035	1-162-115-00	CERAMIC	330pF	10%	1KV	D5001	8-719-083-60	DIODE	UDZSTE-174.7B
C8036	1-162-115-00	CERAMIC	330pF	10%	1KV	D5002	8-719-908-03	DIODE	GP08D
C8037	1-165-953-11	FILM	47000pF	3%	800V	D5003	8-719-028-45	DIODE	D2L20U
C8040	1-126-969-11	ELECT	220μF	20%	50V	D5004	8-719-083-82	DIODE	UDZS-TE17-12B
C8041	1-130-495-00	MYLAR	0.1μF	5%	50V	D5005	8-719-404-50	DIODE	MA111-TX
C8042	1-136-189-00	MYLAR	0.1μF	10%	250V	D5006	8-719-404-50	DIODE	MA111-TX
C8045	1-130-471-00	MYLAR	0.001μF	5%	50V	D5007	8-719-404-50	DIODE	MA111-TX
C8048	1-130-495-00	MYLAR	0.1μF	5%	50V	D5008	8-719-404-50	DIODE	MA111-TX
C8050	1-100-122-31	FILM	0.022μF	5%	400V	D5010	8-719-404-50	DIODE	MA111-TX
C8051	1-126-964-11	ELECT	10μF	20%	50V	D5011	8-719-109-63	DIODE	RD3.0ESB2
C8052	1-104-665-11	ELECT	100μF	20%	25V	D5014	8-719-075-66	DIODE	D5LC20U-4012
C8053	1-162-117-00	CERAMIC	100pF	10%	500V	D5016	8-719-028-45	DIODE	D2L20U
C8054	1-102-244-00	CERAMIC	220pF	10%	500V	D5017	8-719-028-45	DIODE	D2L20U
C8055	1-100-144-31	FILM	0.0068μF	5%	630V	D5018	8-719-083-83	DIODE	UDZS-TE17-15B
C8056	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V	D5019	8-719-404-50	DIODE	MA111-TX
C8058	1-137-194-81	FILM	0.47μF	5%	50V	D5023	8-719-061-21	DIODE	FMQ-G5FMS
C8059	1-126-947-11	ELECT	47μF	20%	35V	D5027	8-719-404-50	DIODE	MA111-TX
C8060	1-106-371-00	MYLAR	0.015μF	99%	200V	D5028	8-719-404-50	DIODE	MA111-TX
C8063	1-165-607-91	FILM	10000pF	3%	800V	D5032	8-719-404-50	DIODE	MA111-TX
C8065	1-127-715-91	CERAMIC CHIP	0.22μF	10%	16V	D5035	8-719-302-43	DIODE	EL1Z
C8073	1-162-962-11	CERAMIC CHIP	470pF	10%	50V	D5036	8-719-302-43	DIODE	EL1Z
C8074	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V	D5501	8-719-404-50	DIODE	MA111-TX
C8075	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V	D5502	8-719-404-50	DIODE	MA111-TX
C8076	1-126-963-11	ELECT	4.7μF	20%	50V	D5504	8-719-404-50	DIODE	MA111-TX
C8077	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V	D5506	8-719-404-50	DIODE	MA111-TX
C8079	1-127-715-91	CERAMIC CHIP	0.22μF	10%	16V	D5508	8-719-404-50	DIODE	MA111-TX
C8139	1-162-966-11	CERAMIC CHIP	0.0022μF	10%	50V	D5511	8-719-062-51	DIODE	1PS226-115
CONNECTOR						D5512	8-719-062-51	DIODE	1PS226-115
*	CN5001	1-779-890-11	CONNECTOR, BOARD TO BOARD	10P		D5513	8-719-404-50	DIODE	MA111-TX
*	CN5002	1-580-798-11	CONNECTOR PIN (DY)	6P		D5514	8-719-060-90	DIODE	S2L60F
*	CN5003	1-564-507-11	PLUG, CONNECTOR	4P		D5515	8-719-404-50	DIODE	MA111-TX
*	CN5009	1-779-890-11	CONNECTOR, BOARD TO BOARD	10P		D6502	8-719-979-64	DIODE	UF4005PKG23
*	CN5011	1-779-890-11	CONNECTOR, BOARD TO BOARD	10P		D6504	8-719-510-12	DIODE	D10SC4M
						D6505	8-719-404-50	DIODE	MA111-TX
						D6508	8-719-982-27	DIODE	MTZJ-33C
*	CN5509	1-564-515-11	PLUG, CONNECTOR	12P		D6509	8-719-068-00	DIODE	ERC04-06SE
*	CN6502	1-766-240-11	PIN, CONNECTOR (PC BOARD)	2P		D6510	8-719-068-00	DIODE	ERC04-06SE
*	CN6503	1-564-508-11	PLUG, CONNECTOR	5P		D6513	8-719-510-12	DIODE	D10SC4M
*	CN6504	1-564-515-11	PLUG, CONNECTOR	12P		D6514	8-719-060-89	DIODE	D4SBS6-F
*	CN6506	1-779-890-11	CONNECTOR, BOARD TO BOARD	10P		D6516	8-719-075-66	DIODE	D5LC20U-4012
						D6518	8-719-052-90	DIODE	D1NL40-TA2
						D6519	8-719-063-74	DIODE	D1NL20U-TR2


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
NOTE: The components identified by shading and  mark are critical for safety. Replace only with part number specified.

NOTE: Les composants identifiés par un trame et une marque  sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.





REF. NO.	PART NO.	DESCRIPTION	VALUES	REF. NO.	PART NO.	DESCRIPTION	VALUES
JR5010	1-216-864-11	SHORT CHIP		PHOTO COUPLER			
JR5011	1-216-864-11	SHORT CHIP		PH6501	8-749-016-81	PHOTO COUPLER	PC123Y22
JR5012	1-216-864-11	SHORT CHIP		 PH6502	8-749-016-81	PHOTO COUPLER	PC123Y22
JR5013	1-216-864-11	SHORT CHIP		PH8001	8-749-016-81	PHOTO COUPLER	PC123Y22
JR5014	1-216-864-11	SHORT CHIP		PH8003	8-749-016-81	PHOTO COUPLER	PC123Y22
JR5015	1-216-864-11	SHORT CHIP		PH8004	8-749-016-81	PHOTO COUPLER	PC123Y22
JR5016	1-216-864-11	SHORT CHIP		IC LINK			
JR5017	1-216-864-11	SHORT CHIP		PS6505	1-576-288-41	IC LINK	10A 90V
JR5501	1-216-864-11	SHORT CHIP		PS6506	1-576-288-41	IC LINK	10A 90V
JR5504	1-216-864-11	SHORT CHIP		PS6550	1-576-288-41	IC LINK	10A 90V
JR5505	1-216-864-11	SHORT CHIP		TRANSISTOR			
JR8000	1-216-864-11	SHORT CHIP		Q5001	8-729-422-27	TRANSISTOR	2SD601A-Q
JR8001	1-216-864-11	SHORT CHIP		Q5002	8-729-424-02	TRANSISTOR	2SB709A-QRS-TX
JR8002	1-216-864-11	SHORT CHIP		Q5003	8-729-027-97	TRANSISTOR	IRFI9630G-LF
JR8003	1-216-864-11	SHORT CHIP		Q5004	8-729-019-57	TRANSISTOR	2SA1208S-TP
JR8005	1-216-864-11	SHORT CHIP		Q5005	8-729-422-27	TRANSISTOR	2SD601A-Q
JR8006	1-216-864-11	SHORT CHIP		Q5006	8-729-422-27	TRANSISTOR	2SD601A-Q
JR8007	1-216-864-11	SHORT CHIP		Q5007	8-729-424-02	TRANSISTOR	2SB709A-QRS-TX
JR8050	1-216-864-11	SHORT CHIP		Q5008	8-729-422-27	TRANSISTOR	2SD601A-Q
JR8051	1-216-864-11	SHORT CHIP		Q5009	8-729-422-27	TRANSISTOR	2SD601A-Q
	(KV-30XBR910 ONLY)			Q5010	8-729-422-27	TRANSISTOR	2SD601A-Q
COIL				Q5011	8-729-422-27	TRANSISTOR	2SD601A-Q
L5001	1-406-665-11	INDUCTOR	100μH	Q5012	8-729-119-80	TRANSISTOR	2SC2688-LK
L5003	1-428-932-11	INDUCTOR	4MH	Q5013	8-729-424-02	TRANSISTOR	2SB709A-QRS-TX
L5005	1-424-997-11	COIL, HORIZONTAL LINEARITY		Q5014	8-729-424-02	TRANSISTOR	2SB709A-QRS-TX
	(KV-30XBR910 ONLY)			Q5015	8-729-046-80	TRANSISTOR	2SC4634LS-CB11
L5005	1-428-895-11	COIL, HORIZONTAL LINEARITY		Q5018	8-729-422-27	TRANSISTOR	2SD601A-Q
	(KV-34XBR910 ONLY)			Q5019	8-729-422-27	TRANSISTOR	2SD601A-Q
L5504	1-406-987-21	INDUCTOR	4.7MH	Q5020	8-729-424-02	TRANSISTOR	2SB709A-QRS-TX
L5505	1-406-989-21	INDUCTOR	10MH	Q5021	8-729-422-27	TRANSISTOR	2SD601A-Q
L5506	1-406-987-21	INDUCTOR	4.7MH	Q5022	8-729-424-02	TRANSISTOR	2SB709A-QRS-TX
L6501	1-412-525-31	INDUCTOR	10μH	Q5023	8-729-422-27	TRANSISTOR	2SD601A-Q
L6502	1-412-525-31	INDUCTOR	10μH	Q5024	8-729-422-27	TRANSISTOR	2SD601A-Q
L6503	1-412-525-31	INDUCTOR	10μH	Q5025	8-729-424-02	TRANSISTOR	2SB709A-QRS-TX
L6505	1-406-665-11	INDUCTOR	100μH	Q5026	8-729-422-27	TRANSISTOR	2SD601A-Q
L6506	1-412-525-31	INDUCTOR	10μH	Q5027	8-729-424-02	TRANSISTOR	2SB709A-QRS-TX
L6507	1-412-525-31	INDUCTOR	10μH	Q5028	8-729-038-83	TRANSISTOR	2SK2251-01-F19
L6510	1-412-523-41	INDUCTOR	6.8μH	Q5030	6-550-168-01	TRANSISTOR	2SC5682-RB
L6511	1-412-523-41	INDUCTOR	6.8μH	Q5031	8-729-048-49	TRANSISTOR	2SK3262-01MR-F119
L6514	1-412-525-31	INDUCTOR	10μH	Q5035	8-729-422-27	TRANSISTOR	2SD601A-Q
L6517	1-412-521-31	INDUCTOR	4.7μH	Q5036	8-729-422-27	TRANSISTOR	2SD601A-Q
L6518	1-412-521-31	INDUCTOR	4.7μH				
L8002	1-428-950-11	INDUCTOR	125μH				
L8005	1-406-670-11	INDUCTOR	680μH				

NOTE: The components identified by shading and  mark are critical for safety. Replace only with part number specified.

NOTE: Les composants identifiés par un trame et une  sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.




REF. NO.	PART NO.	DESCRIPTION	VALUES	REF. NO.	PART NO.	DESCRIPTION	VALUES
Q5501	8-729-422-27	TRANSISTOR	2SD601A-Q	R5007	1-208-832-11	METAL CHIP	120K 0.50% 1/10W
Q5502	8-729-422-27	TRANSISTOR	2SD601A-Q	R5008	1-216-833-11	METAL CHIP	10K 5% 1/10W
Q5503	8-729-422-27	TRANSISTOR	2SD601A-Q	R5009	1-208-832-11	METAL CHIP	120K 0.50% 1/10W
Q5504	8-729-424-02	TRANSISTOR	2SB709A-QRS-TX	R5010	1-216-833-11	METAL CHIP	10K 5% 1/10W
Q5505	8-729-422-27	TRANSISTOR	2SD601A-Q	R5011	1-208-832-11	METAL CHIP	120K 0.50% 1/10W
Q5506	8-729-422-27	TRANSISTOR	2SD601A-Q	R5012	1-218-724-11	METAL CHIP	22K 0.50% 1/10W
Q5507	8-729-052-29	TRANSISTOR	2SK2876-01MR-F122	R5013	1-216-373-11	METAL OXIDE	2.2 5% 2W
Q5510	8-729-422-27	TRANSISTOR	2SD601A-Q	R5014	1-218-698-11	METAL CHIP	1.8K 0.50% 1/10W
Q5512	8-729-422-27	TRANSISTOR	2SD601A-Q		(KV-30XBR910 ONLY)		
Q5513	8-729-422-27	TRANSISTOR	2SD601A-Q	R5014	1-218-700-11	METAL CHIP	2.2K 0.50% 1/10W
					(KV-34XBR910 ONLY)		
Q5568	8-729-422-27	TRANSISTOR	2SD601A-Q	R5015	1-216-841-11	METAL CHIP	47K 5% 1/10W
Q5569	8-729-424-02	TRANSISTOR	2SB709A-QRS-TX	R5016	1-208-834-11	METAL CHIP	150K 0.50% 1/10W
Q6506	8-729-052-32	TRANSISTOR	IRFIB7N50A-LF31	R5017	1-208-834-11	METAL CHIP	150K 0.50% 1/10W
Q6507	8-729-052-32	TRANSISTOR	IRFIB7N50A-LF31		(KV-30XBR910 ONLY)		
Q6522	8-729-424-02	TRANSISTOR	2SB709A-QRS-TX	R5017	1-208-836-11	METAL CHIP	180K 0.50% 1/10W
					(KV-34XBR910 ONLY)		
Q6527	8-729-422-27	TRANSISTOR	2SD601A-Q	R5018	1-216-833-11	METAL CHIP	10K 5% 1/10W
Q6530	8-729-424-02	TRANSISTOR	2SB709A-QRS-TX	R5019	1-216-833-11	METAL CHIP	10K 5% 1/10W
Q6532	8-729-422-27	TRANSISTOR	2SD601A-Q	R5020	1-218-710-11	METAL CHIP	5.6K 0.50% 1/10W
Q8003	8-729-422-27	TRANSISTOR	2SD601A-Q	R5023	1-216-833-11	METAL CHIP	10K 5% 1/10W
Q8004	8-729-422-27	TRANSISTOR	2SD601A-Q	R5024	1-216-833-11	METAL CHIP	10K 5% 1/10W
Q8007	8-729-422-27	TRANSISTOR	2SD601A-Q	R5025	1-218-710-11	METAL CHIP	5.6K 0.50% 1/10W
Q8008	8-729-422-27	TRANSISTOR	2SD601A-Q	R5026	1-216-833-11	METAL CHIP	10K 5% 1/10W
Q8011	8-729-424-02	TRANSISTOR	2SB709A-QRS-TX	R5027	1-216-841-11	METAL CHIP	47K 5% 1/10W
 Q8013	8-729-052-32	TRANSISTOR	IRFIB7N50A-LF31	R5028	1-216-841-11	METAL CHIP	47K 5% 1/10W
 Q8014	8-729-052-32	TRANSISTOR	IRFIB7N50A-LF31	R5029	1-218-708-11	METAL CHIP	4.7K 0.50% 1/10W
Q8015	8-729-119-80	TRANSISTOR	2SC2688-LK	R5030	1-216-864-11	SHORT CHIP	
Q8016	8-729-045-65	TRANSISTOR	2SA1776TV2Q	R5031	1-218-692-11	METAL CHIP	1K 0.50% 1/10W
Q8018	8-729-043-95	TRANSISTOR	2SC3840(3)	R5033	1-216-821-11	METAL CHIP	1K 5% 1/10W
Q8019	8-729-422-27	TRANSISTOR	2SD601A-Q	R5035	1-218-720-11	METAL CHIP	15K 0.50% 1/10W
Q8020	8-729-422-27	TRANSISTOR	2SD601A-Q		(KV-30XBR910 ONLY)		
Q8021	8-729-424-02	TRANSISTOR	2SB709A-QRS-TX	R5035	1-218-716-11	METAL CHIP	10K 0.50% 1/10W
Q8022	8-729-424-02	TRANSISTOR	2SB709A-QRS-TX		(KV-34XBR910 ONLY)		
Q8023	8-729-422-27	TRANSISTOR	2SD601A-Q	R5036	1-216-839-11	METAL CHIP	33K 5% 1/10W
Q8028	8-729-422-27	TRANSISTOR	2SD601A-Q	R5037	1-216-825-11	METAL CHIP	2.2K 5% 1/10W
Q8034	8-729-422-27	TRANSISTOR	2SD601A-Q	R5038	1-216-834-11	METAL CHIP	12K 5% 1/10W
Q8035	8-729-424-02	TRANSISTOR	2SB709A-QRS-TX	R5040	1-218-748-11	METAL CHIP	220K 0.50% 1/10W
RESISTOR				R5041	1-249-383-11	CARBON	1.5 5% 1/4W
R5001	1-216-797-11	METAL CHIP	10 5% 1/10W	R5042	1-216-841-11	METAL CHIP	47K 5% 1/10W
R5002	1-216-813-11	METAL CHIP	220 5% 1/10W	R5043	1-218-708-11	METAL CHIP	4.7K 0.50% 1/10W
R5003	1-216-833-11	METAL CHIP	10K 5% 1/10W	R5044	1-216-833-11	METAL CHIP	10K 5% 1/10W
R5004	1-208-832-11	METAL CHIP	120K 0.50% 1/10W	R5045	1-216-845-11	METAL CHIP	100K 5% 1/10W
R5005	1-216-813-11	METAL CHIP	220 5% 1/10W	R5046	1-214-798-21	METAL	1.8 1% 1/2W




REF. NO.	PART NO.	DESCRIPTION	VALUES			REF. NO.	PART NO.	DESCRIPTION	VALUES		
R5047	1-249-421-11	CARBON	2.2K	5%	1/4W	R5098	1-249-379-11	CARBON	0.68	5%	1/4W
R5048	1-216-841-11	METAL CHIP	47K	5%	1/10W	R5101	1-218-708-11	METAL CHIP	4.7K	0.50%	1/10W
R5049	1-216-833-11	METAL CHIP	10K	5%	1/10W	R5102	1-218-692-11	METAL CHIP	1K	0.50%	1/10W
R5050	1-216-833-11	METAL CHIP	10K	5%	1/10W	R5103	1-218-700-11	METAL CHIP	2.2K	0.50%	1/10W
R5051	1-249-414-11	CARBON	560	5%	1/4W	R5104	1-216-833-11	METAL CHIP	10K	5%	1/10W
R5052	1-214-796-00	METAL	1.5	1%	1/2W	R5105	1-216-841-11	METAL CHIP	47K	5%	1/10W
R5053	1-215-892-11	METAL OXIDE	1K	5%	2W	R5106	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R5054	1-216-833-11	METAL CHIP	10K	5%	1/10W	R5107	1-249-393-11	CARBON	10	5%	1/4W
R5060	1-216-833-11	METAL CHIP	10K	5%	1/10W	R5108	1-218-736-11	METAL CHIP	68K	0.50%	1/10W
R5061	1-216-833-11	METAL CHIP	10K	5%	1/10W	R5109	1-218-728-11	METAL CHIP	33K	0.50%	1/10W
R5062	1-216-845-11	METAL CHIP	100K	5%	1/10W	R5110	1-249-401-11	CARBON	47	5%	1/4W
R5063	1-218-722-11	METAL CHIP	18K	0.50%	1/10W	R5111	1-216-830-11	METAL CHIP	5.6K	5%	1/10W
R5064	1-218-748-11	METAL CHIP	220K	0.50%	1/10W	R5112	1-216-813-11	METAL CHIP	220	5%	1/10W
R5065	1-218-749-11	METAL CHIP	240K	0.50%	1/10W	R5113	1-260-107-11	CARBON	4.7K	5%	1/2W
R5066	1-218-748-11	METAL CHIP	220K	0.50%	1/10W	R5115	1-249-417-11	CARBON	1K	5%	1/4W
	(KV-30XBR910 ONLY)					R5116	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R5066	1-218-740-11	METAL CHIP	100K	0.50%	1/10W	R5117	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
	(KV-34XBR910 ONLY)					R5118	1-216-797-11	METAL CHIP	10	5%	1/10W
R5068	1-218-750-11	METAL CHIP	270K	0.50%	1/10W	R5120	1-218-702-11	METAL CHIP	2.7K	0.50%	1/10W
R5069	1-216-841-11	METAL CHIP	47K	5%	1/10W	R5124	1-216-809-11	METAL CHIP	100	5%	1/10W
R5070	1-218-710-11	METAL CHIP	5.6K	0.50%	1/10W	R5125	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R5071	1-218-704-11	METAL CHIP	3.3K	0.50%	1/10W	R5126	1-216-809-11	METAL CHIP	100	5%	1/10W
R5072	1-216-833-11	METAL CHIP	10K	5%	1/10W	R5127	1-215-892-11	METAL OXIDE	1K	5%	2W
R5073	1-216-833-11	METAL CHIP	10K	5%	1/10W	R5128	1-216-828-11	METAL CHIP	3.9K	5%	1/10W
R5074	1-260-328-11	CARBON	1K	5%	1/2W	R5129	1-216-809-11	METAL CHIP	100	5%	1/10W
R5076	1-215-900-11	METAL OXIDE	22K	5%	2W	R5130	1-216-797-11	METAL CHIP	10	5%	1/10W
R5077	1-215-900-11	METAL OXIDE	22K	5%	2W	R5131	1-218-710-11	METAL CHIP	5.6K	0.50%	1/10W
R5078	1-218-684-11	METAL CHIP	470	0.50%	1/10W		(KV-30XBR910 ONLY)				
R5079	1-218-720-11	METAL CHIP	15K	0.50%	1/10W	R5131	1-218-702-11	METAL CHIP	2.7K	0.50%	1/10W
R5080	1-216-829-11	METAL CHIP	4.7K	5%	1/10W		(KV-34XBR910 ONLY)				
R5081	1-218-728-11	METAL CHIP	33K	0.50%	1/10W	R5132	1-215-895-11	METAL OXIDE	3.3K	5%	2W
R5082	1-218-716-11	METAL CHIP	10K	0.50%	1/10W	R5133	1-215-895-11	METAL OXIDE	3.3K	5%	2W
R5083	1-218-700-11	METAL CHIP	2.2K	0.50%	1/10W	R5135	1-215-895-11	METAL OXIDE	3.3K	5%	2W
R5084	1-216-833-11	METAL CHIP	10K	5%	1/10W	R5136	1-215-895-11	METAL OXIDE	3.3K	5%	2W
R5085	1-216-853-11	METAL CHIP	470K	5%	1/10W	R5137	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R5086	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	R5138	1-216-821-11	METAL CHIP	1K	5%	1/10W
R5087	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	R5139	1-216-821-11	METAL CHIP	1K	5%	1/10W
R5090	1-216-369-00	METAL OXIDE	1	5%	2W	R5141	1-215-890-11	METAL OXIDE	470	5%	2W
R5091	1-249-389-11	CARBON	4.7	5%	1/4W	R5142	1-216-365-00	METAL OXIDE	0.47	5%	2W
R5092	1-216-821-11	METAL CHIP	1K	5%	1/10W	R5143	1-216-365-00	METAL OXIDE	0.47	5%	2W
R5093	1-218-717-11	METAL CHIP	11K	0.50%	1/10W	R5144	1-216-365-00	METAL OXIDE	0.47	5%	2W
R5095	1-249-377-11	CARBON	0.47	5%	1/4W	R5145	1-215-880-00	METAL OXIDE	10	5%	2W
R5096	1-249-377-11	CARBON	0.47	5%	1/4W	R5146	1-249-437-11	CARBON	47K	5%	1/4W
R5097	1-249-380-11	CARBON	0.82	5%	1/4W						









REF. NO.	PART NO.	DESCRIPTION	VALUES			REF. NO.	PART NO.	DESCRIPTION	VALUES		
R5147	1-218-710-11	METAL CHIP (KV-30XBR910 ONLY)	5.6K	0.50%	1/10W	R5535	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R5147	1-218-702-11	METAL CHIP (KV-34XBR910 ONLY)	2.7K	0.50%	1/10W	R5536	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R5148	1-215-865-11	METAL OXIDE	220	5%	1W	R5537	1-218-732-11	METAL CHIP	47K	0.50%	1/10W
R5150	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	R5538	1-216-837-11	METAL CHIP	22K	5%	1/10W
R5151	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	R5539	1-216-849-11	METAL CHIP	220K	5%	1/10W
R5153	1-216-833-11	METAL CHIP	10K	5%	1/10W	R5540	1-214-800-11	METAL	2.2	1%	1/2W
R5154	1-216-833-11	METAL CHIP	10K	5%	1/10W	R5541	1-216-849-11	METAL CHIP	220K	5%	1/10W
R5158	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	R5542	1-216-837-11	METAL CHIP	22K	5%	1/10W
R5160	1-216-809-11	METAL CHIP	100	5%	1/10W	R5543	1-216-821-11	METAL CHIP	1K	5%	1/10W
R5163	1-216-828-11	METAL CHIP	3.9K	5%	1/10W	R5544	1-218-716-11	METAL CHIP	10K	0.50%	1/10W
R5164	1-216-845-11	METAL CHIP	100K	5%	1/10W	R5545	1-218-732-11	METAL CHIP	47K	0.50%	1/10W
R5165	1-216-841-11	METAL CHIP	47K	5%	1/10W	R5546	1-216-864-11	SHORT CHIP			
R5170	1-215-896-00	METAL OXIDE	4.7K	5%	2W	R5547	1-216-821-11	METAL CHIP	1K	5%	1/10W
R5171	1-215-896-00	METAL OXIDE	4.7K	5%	2W	R5548	1-216-821-11	METAL CHIP	1K	5%	1/10W
R5172	1-260-288-11	CARBON	0.47	5%	1/2W	R5549	1-218-692-11	METAL CHIP	1K	0.50%	1/10W
R5173	1-260-288-11	CARBON	0.47	5%	1/2W	R5551	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R5176	1-216-833-11	METAL CHIP	10K	5%	1/10W	R5552	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R5501	1-218-716-11	METAL CHIP	10K	0.50%	1/10W	R5553	1-218-724-11	METAL CHIP	22K	0.50%	1/10W
R5502	1-216-864-11	SHORT CHIP				R5554	1-218-732-11	METAL CHIP	47K	0.50%	1/10W
R5503	1-216-833-11	METAL CHIP	10K	5%	1/10W	R5555	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R5505	1-218-750-11	METAL CHIP	270K	0.50%	1/10W	R5556	1-218-708-11	METAL CHIP	4.7K	0.50%	1/10W
R5506	1-216-845-11	METAL CHIP	100K	5%	1/10W	R5557	1-218-692-11	METAL CHIP	1K	0.50%	1/10W
R5507	1-216-833-11	METAL CHIP	10K	5%	1/10W	R5558	1-218-692-11	METAL CHIP	1K	0.50%	1/10W
R5508	1-216-837-11	METAL CHIP	22K	5%	1/10W	R5559	1-218-720-11	METAL CHIP	15K	0.50%	1/10W
R5510	1-216-821-11	METAL CHIP	1K	5%	1/10W	R5560	1-216-841-11	METAL CHIP	47K	5%	1/10W
R5512	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	R5561	1-218-740-11	METAL CHIP	100K	0.50%	1/10W
R5513	1-216-821-11	METAL CHIP	1K	5%	1/10W	R5562	1-218-734-11	METAL CHIP	56K	0.50%	1/10W
R5518	1-218-728-11	METAL CHIP	33K	0.50%	1/10W	R5565	1-249-377-11	CARBON	0.47	5%	1/4W
R5519	1-218-740-11	METAL CHIP	100K	0.50%	1/10W	R5566	1-249-401-11	CARBON	47	5%	1/4W
R5520	1-216-833-11	METAL CHIP	10K	5%	1/10W	R5567	1-216-809-11	METAL CHIP	100	5%	1/10W
R5521	1-216-833-11	METAL CHIP	10K	5%	1/10W	R5568	1-216-853-11	METAL CHIP	470K	5%	1/10W
R5522	1-218-716-11	METAL CHIP	10K	0.50%	1/10W	R5569	1-216-821-11	METAL CHIP	1K	5%	1/10W
R5523	1-218-744-11	METAL CHIP	150K	0.50%	1/10W	R5570	1-216-833-11	METAL CHIP	10K	5%	1/10W
R5524	1-216-839-11	METAL CHIP	33K	5%	1/10W	R5571	1-216-821-11	METAL CHIP	1K	5%	1/10W
R5525	1-216-853-11	METAL CHIP	470K	5%	1/10W	R5572	1-216-833-11	METAL CHIP	10K	5%	1/10W
R5526	1-216-853-11	METAL CHIP	470K	5%	1/10W	R5576	1-249-395-11	CARBON	15	5%	1/4W
R5527	1-216-833-11	METAL CHIP	10K	5%	1/10W	R5578	1-218-730-11	METAL CHIP	39K	0.50%	1/10W
R5528	1-216-833-11	METAL CHIP	10K	5%	1/10W	R5579	1-218-732-11	METAL CHIP	47K	0.50%	1/10W
R5529	1-218-702-11	METAL CHIP	2.7K	0.50%	1/10W	R5580	1-216-837-11	METAL CHIP	22K	5%	1/10W
R5530	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	R5581	1-218-708-11	METAL CHIP	4.7K	0.50%	1/10W
R5532	1-216-821-11	METAL CHIP	1K	5%	1/10W	R5582	1-216-821-11	METAL CHIP	1K	5%	1/10W
R5533	1-218-740-11	METAL CHIP	100K	0.50%	1/10W	R5588	1-216-353-00	METAL OXIDE	2.2	5%	1W
						R5589	1-218-708-11	METAL CHIP	4.7K	0.50%	1/10W
						R5590	1-218-722-11	METAL CHIP	18K	0.50%	1/10W


NOTE: The components identified by shading and  mark are critical for safety. Replace only with part number specified.

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REF. NO.	PART NO.	DESCRIPTION	VALUES			REF. NO.	PART NO.	DESCRIPTION	VALUES		
R5591	1-218-716-11	METAL CHIP	10K	0.50%	1/10W	R6544	1-216-864-11	SHORT CHIP			
R5592	1-218-692-11	METAL CHIP	1K	0.50%	1/10W	R6545	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R5593	1-218-692-11	METAL CHIP	1K	0.50%	1/10W	R6547	1-216-864-11	SHORT CHIP			
R5594	1-216-833-11	METAL CHIP	10K	5%	1/10W	R6548	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R5597	1-218-750-11	METAL CHIP	270K	0.50%	1/10W	R6556	1-243-979-71	METAL OXIDE	0.1	5%	2W
R5603	1-216-857-11	METAL CHIP	1M	5%	1/10W	R6557	1-243-979-71	METAL OXIDE	0.1	5%	2W
R5604	1-216-857-11	METAL CHIP	1M	5%	1/10W	 R6590	1-249-415-11	CARBON	680	5%	1/4W
R5711	1-218-740-11	METAL CHIP	100K	0.50%	1/10W	R6593	1-249-405-11	CARBON	100	5%	1/4W
R5712	1-218-740-11	METAL CHIP	100K	0.50%	1/10W	R6595	1-249-377-11	CARBON	0.47	5%	1/4W
R6501	1-218-662-11	METAL CHIP	56	0.50%	1/10W	R6602	1-216-821-11	METAL CHIP	1K	5%	1/10W
R6502	1-260-131-11	CARBON	470K	5%	1/2W	R6605	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R6503	1-216-835-11	METAL CHIP	15K	5%	1/10W	R6646	1-215-481-00	METAL	330K	1%	1/4W
R6504	1-260-354-71	CARBON	150K	5%	1/2W	R8001	1-216-809-11	METAL CHIP	100	5%	1/10W
R6505	1-218-668-11	METAL CHIP	100	0.50%	1/10W	R8003	1-216-837-11	METAL CHIP	22K	5%	1/10W
R6506	1-260-354-71	CARBON	150K	5%	1/2W	R8004	1-218-708-11	METAL CHIP	4.7K	0.50%	1/10W
R6507	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	R8005	1-216-837-11	METAL CHIP	22K	5%	1/10W
R6508	1-249-393-11	CARBON	10	5%	1/4W	R8006	1-219-512-11	METAL	2.2M	5%	1/2W
R6509	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	R8007	1-219-512-11	METAL	2.2M	5%	1/2W
R6510	1-249-393-11	CARBON	10	5%	1/4W	R8010	1-216-864-11	SHORT CHIP			
R6511	1-260-298-51	CARBON	3.3	5%	1/2W	R8011	1-216-849-11	METAL CHIP	220K	5%	1/10W
R6513	1-215-481-00	METAL	330K	1%	1/4W	R8012	1-249-419-11	CARBON	1.5K	5%	1/4W
R6514	1-215-481-00	METAL	330K	1%	1/4W	R8013	1-216-833-11	METAL CHIP	10K	5%	1/10W
R6515	1-260-131-11	CARBON	470K	5%	1/2W	R8014	1-218-692-11	METAL CHIP	1K	0.50%	1/10W
 R6516	1-244-207-11	WIREWOUND	3.3	5%	10W	R8015	1-218-700-11	METAL CHIP	2.2K	0.50%	1/10W
R6517	1-218-715-11	METAL CHIP	9.1K	0.50%	1/10W	R8016	1-247-843-11	CARBON	3.3K	5%	1/4W
R6518	1-218-719-11	METAL CHIP	13K	0.50%	1/10W	R8017	1-218-703-11	METAL CHIP	3K	0.50%	1/10W
R6519	1-216-864-11	SHORT CHIP				 R8019	1-218-742-11	METAL CHIP	120K	0.50%	1/10W
R6521	1-260-328-11	CARBON	1K	5%	1/2W	(KV-30XBR910 ONLY)					
R6524	1-216-864-11	SHORT CHIP				R8020	1-216-833-11	METAL CHIP	10K	5%	1/10W
R6525	1-216-817-11	METAL CHIP	470	5%	1/10W	R8022	1-216-833-11	METAL CHIP	10K	5%	1/10W
R6526	1-202-933-61	FUSIBLE	0.1	10%	1/2W	R8024	1-216-833-11	METAL CHIP	10K	5%	1/10W
R6527	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	R8025	1-216-821-11	METAL CHIP	1K	5%	1/10W
R6528	1-216-809-11	METAL CHIP	100	5%	1/10W	R8026	1-218-698-11	METAL CHIP	1.8K	0.50%	1/10W
R6529	1-249-393-11	CARBON	10	5%	1/4W	R8027	1-218-736-11	METAL CHIP	68K	0.50%	1/10W
R6530	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	R8028	1-218-710-11	METAL CHIP	5.6K	0.50%	1/10W
R6531	1-249-393-11	CARBON	10	5%	1/4W	R8029	1-218-736-11	METAL CHIP	68K	0.50%	1/10W
R6532	1-216-833-11	METAL CHIP	10K	5%	1/10W	R8030	1-218-740-11	METAL CHIP	100K	0.50%	1/10W
R6533	1-216-833-11	METAL CHIP	10K	5%	1/10W	R8031	1-218-740-11	METAL CHIP	100K	0.50%	1/10W
R6535	1-216-833-11	METAL CHIP	10K	5%	1/10W	R8032	1-216-837-11	METAL CHIP	22K	5%	1/10W
R6536	1-249-417-11	CARBON	1K	5%	1/4W	R8033	1-216-821-11	METAL CHIP	1K	5%	1/10W
R6537	1-216-833-11	METAL CHIP	10K	5%	1/10W	 R8035	1-218-706-11	METAL CHIP	3.9K	0.50%	1/10W
R6538	1-216-833-11	METAL CHIP	10K	5%	1/10W	 R8036	1-215-419-00	METAL	820	1%	1/4W
R6539	1-215-900-11	METAL OXIDE	22K	5%	2W	(KV-30XBR910 ONLY)					
R6542	1-216-821-11	METAL CHIP	1K	5%	1/10W						


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REF. NO.	PART NO.	DESCRIPTION	VALUES				REF. NO.	PART NO.	DESCRIPTION	VALUES			
	R8036	1-215-415-00 METAL (KV-34XBR910 ONLY)	560	1%	1/4W		R8070	1-243-979-71	METAL OXIDE	0.1	5%	2W	
	R8037	1-215-447-00 METAL (KV-30XBR910 ONLY)	12K	1%	1/4W		R8072	1-249-377-11	CARBON	0.47	5%	1/4W	
	R8037	1-215-445-00 METAL (KV-34XBR910 ONLY)	10K	1%	1/4W		R8076	1-240-931-91	METAL	330	5%	0.5W	
							R8077	1-216-864-11	SHORT CHIP				
								R8078	1-218-740-11 METAL CHIP (KV-30XBR910 ONLY)	100K	0.50%	1/10W	
	R8038	1-215-447-00 METAL (KV-30XBR910 ONLY)	12K	1%	1/4W			R8078	1-218-748-11 METAL CHIP (KV-34XBR910 ONLY)	220K	0.50%	1/10W	
	R8038	1-215-445-00 METAL (KV-34XBR910 ONLY)	10K	1%	1/4W		R8079	1-249-431-11	CARBON	15K	5%	1/4W	
	R8039	1-215-447-00 METAL (KV-30XBR910 ONLY)	12K	1%	1/4W		R8080	1-249-401-11	CARBON	47	5%	1/4W	
							R8082	1-216-863-11	METAL CHIP	3.3M	5%	1/10W	
	R8039	1-215-445-00 METAL (KV-34XBR910 ONLY)	10K	1%	1/4W		R8085	1-219-749-91	METAL	10K	5%	1/2W	
	R8040	1-215-443-00 METAL (KV-30XBR910 ONLY)	8.2K	1%	1/4W		R8086	1-219-751-91	METAL	47K	5%	1/2W	
	R8040	1-215-445-00 METAL (KV-34XBR910 ONLY)	10K	1%	1/4W		R8087	1-216-864-11	SHORT CHIP				
							R8088	1-216-833-11	METAL CHIP	10K	5%	1/10W	
	R8041	1-216-864-11 SHORT CHIP					R8089	1-216-841-11	METAL CHIP	47K	5%	1/10W	
	R8043	1-215-447-00 METAL	12K	1%	1/4W		R8090	1-216-833-11	METAL CHIP	10K	5%	1/10W	
	R8046	1-218-696-11 METAL CHIP (KV-30XBR910 ONLY)	1.5K	0.50%	1/10W		R8091	1-215-485-00	METAL	470K	1%	1/4W	
	R8046	1-218-692-11 METAL CHIP (KV-34XBR910 ONLY)	1K	0.50%	1/10W		R8093	1-208-834-11	METAL CHIP	150K	0.50%	1/10W	
							R8095	1-215-485-00	METAL	470K	1%	1/4W	
	R8047	1-216-341-11 METAL OXIDE	0.22	5%	1W		R8096	1-216-864-11	SHORT CHIP				
	R8049	1-218-668-11 METAL CHIP	100	0.50%	1/10W		R8097	1-216-797-11	METAL CHIP	10	5%	1/10W	
	R8050	1-218-656-11 METAL CHIP	33	0.50%	1/10W		R8101	1-208-834-11	METAL CHIP	150K	0.50%	1/10W	
	R8051	1-202-933-61 FUSIBLE	0.1	10%	1/2W		R8102	1-249-433-11	CARBON	22K	5%	1/4W	
	R8052	1-218-720-11 METAL CHIP (KV-30XBR910 ONLY)	15K	0.50%	1/10W		R8103	1-218-867-11	METAL CHIP	6.8K	0.50%	1/10W	
							R8104	1-216-841-11	METAL CHIP	47K	5%	1/10W	
	R8052	1-218-719-11 METAL CHIP (KV-34XBR910 ONLY)	13K	0.50%	1/10W								
	R8053	1-215-481-00 METAL	330K	1%	1/4W		R8105	1-216-809-11	METAL CHIP	100	5%	1/10W	
	R8054	1-215-481-00 METAL	330K	1%	1/4W		R8106	1-249-377-11	CARBON	0.47	5%	1/4W	
	R8055	1-215-480-00 METAL	300K	1%	1/4W		R8108	1-216-845-11	METAL CHIP	100K	5%	1/10W	
	R8056	1-218-714-11 METAL CHIP	8.2K	0.50%	1/10W		R8109	1-215-918-00 METAL OXIDE (KV-30XBR910 ONLY)	1.5K	5%	3W		
	R8057	1-218-719-11 METAL CHIP	13K	0.50%	1/10W								
	R8058	1-249-393-11 CARBON	10	5%	1/4W		R8109	1-215-917-11 METAL OXIDE (KV-34XBR910 ONLY)	1K	5%	3W		
	R8059	1-216-864-11 SHORT CHIP					R8110	1-208-842-11 METAL CHIP	330K	0.50%	1/10W		
	R8060	1-218-684-11 METAL CHIP	470	0.50%	1/10W		R8111	1-215-918-00 METAL OXIDE (KV-30XBR910 ONLY)	1.5K	5%	3W		
	R8061	1-249-393-11 CARBON	10	5%	1/4W								
	R8062	1-216-833-11 METAL CHIP	10K	5%	1/10W		R8111	1-215-917-11 METAL OXIDE (KV-34XBR910 ONLY)	1K	5%	3W		
	R8063	1-216-833-11 METAL CHIP	10K	5%	1/10W		R8112	1-216-845-11 METAL CHIP	100K	5%	1/10W		
	R8066	1-216-821-11 METAL CHIP	1K	5%	1/10W		R8113	1-208-842-11 METAL CHIP	330K	0.50%	1/10W		
	R8069	1-249-425-11 CARBON	4.7K	5%	1/4W		R8114	1-215-918-00 METAL OXIDE (KV-30XBR910 ONLY)	1.5K	5%	3W		
							R8114	1-215-917-11 METAL OXIDE (KV-34XBR910 ONLY)	1K	5%	3W		

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A component identified by this  symbol indicates that it has been carefully factory-selected to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.



REF. NO.	PART NO.	DESCRIPTION	VALUES			REF. NO.	PART NO.	DESCRIPTION	VALUES		
R8115	1-216-821-11	METAL CHIP	1K	5%	1/10W	RELAY					
R8116	1-215-918-00	METAL OXIDE (KV-30XBR910 ONLY)	1.5K	5%	3W		RY6501	1-755-395-11	RELAY (AC POWER)		
R8116	1-215-917-11	METAL OXIDE (KV-34XBR910 ONLY)	1K	5%	3W		RY6502	1-755-389-11	RELAY (AC POWER)		
R8117	1-216-845-11	METAL CHIP	100K	5%	1/10W	SPARK GAP					
R8118	1-216-839-11	METAL CHIP	33K	5%	1/10W	SG8002	1-517-499-21	GAP, SPARK			
R8119	1-215-918-00	METAL OXIDE (KV-30XBR910 ONLY)	1.5K	5%	3W	TRANSFORMER					
R8119	1-215-917-11	METAL OXIDE (KV-34XBR910 ONLY)	1K	5%	3W	T5001	1-437-523-41	TRANSFORMER, HORIZONTAL OUTPUT			
R8123	1-216-809-11	METAL CHIP	100	5%	1/10W	T5002	1-435-636-31	TRANSFORMER, HORIZONTAL DRIVE			
R8124	1-216-833-11	METAL CHIP	10K	5%	1/10W		T6502	1-437-696-11	TRANSFORMER, CONVERTER		
R8125	1-216-797-11	METAL CHIP	10	5%	1/10W		T8001	1-453-387-21	FBT ASSY NX-6020//M3J4		
R8126	1-216-797-11	METAL CHIP	10	5%	1/10W	T8004	1-439-991-11	DYNAMIC FOCUS TRANSFORMER(DFT)			
R8135	1-216-833-11	METAL CHIP	10K	5%	1/10W	THERMISTOR					
R8136	1-216-833-11	METAL CHIP	10K	5%	1/10W	TH5002	1-807-796-11	THERMISTOR			
R8137	1-216-821-11	METAL CHIP	1K	5%	1/10W	<div><div>DL</div></div>					
R8138	1-216-857-11	METAL CHIP	1M	5%	1/10W	*	A-1302-221-A	DL BOARD, COMPLETE (KV-34XBR910 ONLY)			
R8144	1-216-849-11	METAL CHIP	220K	5%	1/10W	*	A-1302-223-A	DL BOARD, COMPLETE (KV-30XBR910 ONLY)			
R8145	1-216-841-11	METAL CHIP	47K	5%	1/10W	4-382-854-01		SCREW (M3X8), P, SW (+)			
R8146	1-216-821-11	METAL CHIP	1K	5%	1/10W	CAPACITOR					
R8150	1-216-841-11	METAL CHIP	47K	5%	1/10W	C5802	1-126-960-11	ELECT	1μF	20%	50V
R8151	1-216-841-11	METAL CHIP	47K	5%	1/10W	C5803	1-126-967-11	ELECT	47μF	20%	50V
R8158	1-216-809-11	METAL CHIP	100	5%	1/10W	C5804	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V
R8159	1-216-835-11	METAL CHIP	15K	5%	1/10W	C5806	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V
R8160	1-216-853-11	METAL CHIP	470K	5%	1/10W	C5807	1-126-947-11	ELECT	47μF	20%	35V
R8161	1-216-833-11	METAL CHIP	10K	5%	1/10W	C5808	1-117-722-11	ELECT	2200μF	20%	10V
 R8165	1-218-742-11	METAL CHIP (KV-30XBR910 ONLY)	120K	0.50%	1/10W	C5809	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V
 R8165	1-216-864-11	METAL CHIP (KV-34XBR910 ONLY)	0			C5812	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V
R8200	1-216-833-11	METAL CHIP	10K	5%	1/10W	C5822	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V
R8202	1-216-833-11	METAL CHIP	10K	5%	1/10W	C5825	1-126-947-11	ELECT	47μF	20%	35V
R8203	1-216-833-11	METAL CHIP	10K	5%	1/10W	C5808	1-117-722-11	ELECT	2200μF	20%	10V
R8204	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	C5809	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V
R8206	1-216-817-11	METAL CHIP	470	5%	1/10W	C5812	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V
VARIABLE RESISTOR						C5822	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V
  RV8002	1-225-627-91	RES, VAR, ADJ, CERMET	2K			C5825	1-126-947-11	ELECT	47μF	20%	35V
						C5827	1-126-947-11	ELECT	47μF	20%	35V
						C5829	1-130-495-00	MYLAR	0.1μF	5%	50V
						C5830	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V
						C5831	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V
						C5832	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V



REF. NO.	PART NO.	DESCRIPTION	VALUES	REF. NO.	PART NO.	DESCRIPTION	VALUES
C5834	1-126-947-11	ELECT	47μF 20% 35V	TRANSISTOR			
C5836	1-107-826-11	CERAMIC CHIP	0.1μF 10% 16V	Q5801	8-729-422-27	TRANSISTOR	2SD601A-Q
C5837	1-162-970-11	CERAMIC CHIP	0.01μF 10% 25V	Q5802	8-729-422-27	TRANSISTOR	2SD601A-Q
C5838	1-162-970-11	CERAMIC CHIP	0.01μF 10% 25V	Q5803	8-729-422-27	TRANSISTOR	2SD601A-Q
C5839	1-126-947-11	ELECT	47μF 20% 35V	Q5806	8-729-422-27	TRANSISTOR	2SD601A-Q
C5840	1-126-947-11	ELECT	47μF 20% 35V	Q5807	8-729-424-02	TRANSISTOR	2SB709A-QRS-TX
C5841	1-130-495-00	MYLAR	0.1μF 5% 50V	RESISTOR			
C5842	1-130-495-00	MYLAR	0.1μF 5% 50V	R5801	1-216-853-11	METAL CHIP	470K 5% 1/10W
C5843	1-130-495-00	MYLAR	0.1μF 5% 50V	R5802	1-216-851-11	METAL CHIP	330K 5% 1/10W
C5844	1-130-495-00	MYLAR	0.1μF 5% 50V	R5803	1-216-841-11	METAL CHIP	47K 5% 1/10W
C5846	1-126-935-11	ELECT	470μF 20% 16V	R5804	1-216-841-11	METAL CHIP	47K 5% 1/10W
C5847	1-126-947-11	ELECT	47μF 20% 35V	R5805	1-218-772-11	METAL CHIP	680K 0.50% 1/10W
C5849	1-126-935-11	ELECT	470μF 20% 16V	(KV-30XBR910 ONLY)			
C5850	1-104-665-11	ELECT	100μF 20% 25V	R5805	1-218-776-11	METAL CHIP	1M 0.50% 1/10W
C5851	1-104-665-11	ELECT	100μF 20% 25V	(KV-34XBR910 ONLY)			
C5903	1-126-964-11	ELECT	10μF 20% 50V	R5807	1-216-833-11	METAL CHIP	10K 5% 1/10W
CONNECTOR				R5808	1-218-716-11	METAL CHIP	10K 0.50% 1/10W
* CN5801	1-764-333-11	PIN, CONNECTOR(PCB)(V TYPE)	10P	R5809	1-216-821-11	METAL CHIP	1K 5% 1/10W
CN5802	1-564-505-11	PLUG, CONNECTOR	2P	R5810	1-218-716-11	METAL CHIP	10K 0.50% 1/10W
* CN5804	1-564-510-11	PLUG, CONNECTOR	7P	R5811	1-218-726-11	METAL CHIP	27K 0.50% 1/10W
* CN5805	1-564-506-11	PLUG, CONNECTOR	3P	(KV-30XBR910 ONLY)			
* CN5806	1-564-507-11	PLUG, CONNECTOR	4P	R5811	1-218-727-11	METAL CHIP	30K 0.50% 1/10W
* CN5807	1-564-507-11	PLUG, CONNECTOR	4P	(KV-34XBR910 ONLY)			
* CN5808	1-564-507-11	PLUG, CONNECTOR	4P	R5812	1-216-793-11	METAL CHIP	4.7 5% 1/10W
DIODE				R5813	1-216-833-11	METAL CHIP	10K 5% 1/10W
D5801	8-719-404-50	DIODE	MA111-TX	R5814	1-216-793-11	METAL CHIP	4.7 5% 1/10W
D5803	8-719-404-50	DIODE	MA111-TX	R5815	1-216-833-11	METAL CHIP	10K 5% 1/10W
D5804	8-719-404-50	DIODE	MA111-TX	R5817	1-218-726-11	METAL CHIP	27K 0.50% 1/10W
D5806	8-719-404-50	DIODE	MA111-TX	R5818	1-218-714-11	METAL CHIP	8.2K 0.50% 1/10W
IC				(KV-30XBR910 ONLY)			
IC5801	8-759-700-78	IC	NJM082M	R5818	1-218-716-11	METAL CHIP	10K 0.50% 1/10W
IC5802	8-752-072-94	IC	CXA1875AM-T4	(KV-34XBR910 ONLY)			
IC5803	8-759-701-01	IC	NJM2904M	R5821	1-218-728-11	METAL CHIP	33K 0.50% 1/10W
IC5806	8-759-596-22	IC	SN74LV4066ANSR	(KV-30XBR910 ONLY)			
IC5809	8-759-803-42	IC	LA6500-FA	R5821	1-218-726-11	METAL CHIP	27K 0.50% 1/10W
IC5811	8-759-822-38	IC	LA6510	(KV-34XBR910 ONLY)			
IC5812	8-759-822-38	IC	LA6510	R5822	1-249-383-11	CARBON	1.5 5% 1/4W
IC5813	8-759-394-35	IC	BA12T	R5823	1-216-805-11	METAL CHIP	47 5% 1/10W
IC5814	8-759-929-65	IC	LM7912CT				
IC5900	8-759-701-01	IC	NJM2904M				




REF. NO.	PART NO.	DESCRIPTION	VALUES			REF. NO.	PART NO.	DESCRIPTION	VALUES		
R5824	1-216-805-11	METAL CHIP	47	5%	1/10W	R5847	1-218-732-11	METAL CHIP	47K	0.50%	1/10W
R5825	1-249-383-11	CARBON	1.5	5%	1/4W		(KV-30XBR910 ONLY)				
R5827	1-215-859-00	METAL OXIDE	22	5%	1W	R5847	1-218-734-11	METAL CHIP	56K	0.50%	1/10W
R5828	1-249-441-11	CARBON	100K	5%	1/4W		(KV-34XBR910 ONLY)				
R5829	1-215-859-00	METAL OXIDE	22	5%	1W	R5848	1-218-719-11	METAL CHIP	13K	0.50%	1/10W
							(KV-30XBR910 ONLY)				
R5830	1-218-716-11	METAL CHIP	10K	0.50%	1/10W						
R5831	1-218-726-11	METAL CHIP	27K	0.50%	1/10W	R5848	1-218-722-11	METAL CHIP	18K	0.50%	1/10W
	(KV-30XBR910 ONLY)						(KV-34XBR910 ONLY)				
R5831	1-218-730-11	METAL CHIP	39K	0.50%	1/10W	R5849	1-249-383-11	CARBON	1.5	5%	1/4W
	(KV-34XBR910 ONLY)					R5851	1-218-726-11	METAL CHIP	27K	0.50%	1/10W
						R5852	1-218-719-11	METAL CHIP	13K	0.50%	1/10W
							(KV-30XBR910 ONLY)				
R5832	1-218-713-11	METAL CHIP	7.5K	0.50%	1/10W						
	(KV-30XBR910 ONLY)										
R5832	1-218-712-11	METAL CHIP	6.8K	0.50%	1/10W	R5852	1-218-722-11	METAL CHIP	18K	0.50%	1/10W
	(KV-34XBR910 ONLY)						(KV-34XBR910 ONLY)				
R5833	1-218-716-11	METAL CHIP	10K	0.50%	1/10W	R5853	1-218-726-11	METAL CHIP	27K	0.50%	1/10W
							(KV-30XBR910 ONLY)				
R5834	1-218-715-11	METAL CHIP	9.1K	0.50%	1/10W	R5853	1-218-728-11	METAL CHIP	33K	0.50%	1/10W
	(KV-30XBR910 ONLY)						(KV-34XBR910 ONLY)				
R5834	1-218-720-11	METAL CHIP	15K	0.50%	1/10W						
	(KV-34XBR910 ONLY)										
R5835	1-218-712-11	METAL CHIP	6.8K	0.50%	1/10W	R5854	1-218-726-11	METAL CHIP	27K	0.50%	1/10W
	(KV-30XBR910 ONLY)					R5855	1-218-730-11	METAL CHIP	39K	0.50%	1/10W
							(KV-30XBR910 ONLY)				
R5835	1-218-714-11	METAL CHIP	8.2K	0.50%	1/10W	R5855	1-218-734-11	METAL CHIP	56K	0.50%	1/10W
	(KV-34XBR910 ONLY)						(KV-34XBR910 ONLY)				
R5836	1-218-694-11	METAL CHIP	1.2K	0.50%	1/10W						
R5837	1-218-716-11	METAL CHIP	10K	0.50%	1/10W	R5856	1-218-730-11	METAL CHIP	39K	0.50%	1/10W
	(KV-30XBR910 ONLY)						(KV-30XBR910 ONLY)				
						R5856	1-218-722-11	METAL CHIP	18K	0.50%	1/10W
							(KV-34XBR910 ONLY)				
R5837	1-218-734-11	METAL CHIP	56K	0.50%	1/10W	R5857	1-218-730-11	METAL CHIP	39K	0.50%	1/10W
	(KV-34XBR910 ONLY)						(KV-30XBR910 ONLY)				
R5838	1-218-732-11	METAL CHIP	47K	0.50%	1/10W						
R5839	1-218-732-11	METAL CHIP	47K	0.50%	1/10W	R5857	1-218-722-11	METAL CHIP	18K	0.50%	1/10W
	(KV-34XBR910 ONLY)						(KV-34XBR910 ONLY)				
						R5858	1-218-730-11	METAL CHIP	39K	0.50%	1/10W
							(KV-30XBR910 ONLY)				
R5840	1-218-712-11	METAL CHIP	6.8K	0.50%	1/10W	R5858	1-218-722-11	METAL CHIP	18K	0.50%	1/10W
	(KV-30XBR910 ONLY)						(KV-34XBR910 ONLY)				
R5840	1-218-709-11	METAL CHIP	5.1K	0.50%	1/10W						
	(KV-34XBR910 ONLY)										
R5841	1-249-441-11	CARBON	100K	5%	1/4W	R5859	1-218-730-11	METAL CHIP	39K	0.50%	1/10W
							(KV-30XBR910 ONLY)				
R5842	1-215-859-00	METAL OXIDE	22	5%	1W	R5859	1-218-722-11	METAL CHIP	18K	0.50%	1/10W
R5843	1-249-441-11	CARBON	100K	5%	1/4W		(KV-34XBR910 ONLY)				
R5844	1-218-730-11	METAL CHIP	39K	0.50%	1/10W	R5860	1-249-441-11	CARBON	100K	5%	1/4W
	(KV-30XBR910 ONLY)										
R5844	1-218-728-11	METAL CHIP	33K	0.50%	1/10W						
	(KV-34XBR910 ONLY)					R5861	1-218-704-11	METAL CHIP	3.3K	0.50%	1/10W
							(KV-30XBR910 ONLY)				
R5845	1-215-859-00	METAL OXIDE	22	5%	1W	R5861	1-218-708-11	METAL CHIP	4.7K	0.50%	1/10W
R5846	1-216-793-11	METAL CHIP	4.7	5%	1/10W		(KV-34XBR910 ONLY)				




REF. NO.	PART NO.	DESCRIPTION	VALUES			REF. NO.	PART NO.	DESCRIPTION	VALUES		
R5862	1-218-712-11	METAL CHIP (KV-30XBR910 ONLY)	6.8K	0.50%	1/10W	R5887	1-218-706-11	METAL CHIP (KV-34XBR910 ONLY)	3.9K	0.50%	1/10W
R5862	1-218-714-11	METAL CHIP (KV-34XBR910 ONLY)	8.2K	0.50%	1/10W	R5889	1-249-383-11	CARBON	1.5	5%	1/4W
R5863	1-218-724-11	METAL CHIP (KV-30XBR910 ONLY)	22K	0.50%	1/10W	R5890	1-218-724-11	METAL CHIP	22K	0.50%	1/10W
						R5892	1-216-833-11	METAL CHIP	10K	5%	1/10W
R5863	1-218-722-11	METAL CHIP (KV-34XBR910 ONLY)	18K	0.50%	1/10W	R5893	1-216-833-11	METAL CHIP	10K	5%	1/10W
R5864	1-218-724-11	METAL CHIP	22K	0.50%	1/10W	R5895	1-218-716-11	METAL CHIP	10K	0.50%	1/10W
R5865	1-218-708-11	METAL CHIP (KV-30XBR910 ONLY)	4.7K	0.50%	1/10W	R5896	1-218-719-11	METAL CHIP (KV-30XBR910 ONLY)	13K	0.50%	1/10W
						R5896	1-218-722-11	METAL CHIP (KV-34XBR910 ONLY)	18K	0.50%	1/10W
R5865	1-218-706-11	METAL CHIP (KV-34XBR910 ONLY)	3.9K	0.50%	1/10W	R5897	1-218-716-11	METAL CHIP	10K	0.50%	1/10W
R5866	1-249-383-11	CARBON	1.5	5%	1/4W	R5898	1-218-722-11	METAL CHIP (KV-30XBR910 ONLY)	18K	0.50%	1/10W
R5867	1-218-724-11	METAL CHIP	22K	0.50%	1/10W	R5898	1-218-720-11	METAL CHIP (KV-34XBR910 ONLY)	15K	0.50%	1/10W
R5868	1-218-708-11	METAL CHIP (KV-30XBR910 ONLY)	4.7K	0.50%	1/10W						
						R5899	1-216-793-11	METAL CHIP	4.7	5%	1/10W
R5868	1-218-706-11	METAL CHIP (KV-34XBR910 ONLY)	3.9K	0.50%	1/10W	R5901	1-218-722-11	METAL CHIP (KV-30XBR910 ONLY)	18K	0.50%	1/10W
R5869	1-249-383-11	CARBON	1.5	5%	1/4W	R5901	1-218-720-11	METAL CHIP (KV-34XBR910 ONLY)	15K	0.50%	1/10W
R5871	1-218-724-11	METAL CHIP	22K	0.50%	1/10W						
R5872	1-218-724-11	METAL CHIP	22K	0.50%	1/10W	R5902	1-218-722-11	METAL CHIP (KV-30XBR910 ONLY)	18K	0.50%	1/10W
						R5902	1-218-720-11	METAL CHIP (KV-34XBR910 ONLY)	15K	0.50%	1/10W
R5873	1-218-708-11	METAL CHIP (KV-30XBR910 ONLY)	4.7K	0.50%	1/10W	R5903	1-218-722-11	METAL CHIP (KV-30XBR910 ONLY)	18K	0.50%	1/10W
R5873	1-218-706-11	METAL CHIP (KV-34XBR910 ONLY)	3.9K	0.50%	1/10W						
R5874	1-249-441-11	CARBON	100K	5%	1/4W	R5903	1-218-720-11	METAL CHIP (KV-34XBR910 ONLY)	15K	0.50%	1/10W
						R5904	1-216-837-11	METAL CHIP	22K	5%	1/10W
R5875	1-215-861-00	METAL OXIDE (KV-30XBR910 ONLY)	47	5%	1W	R5905	1-216-837-11	METAL CHIP	22K	5%	1/10W
R5875	1-215-859-00	METAL OXIDE (KV-34XBR910 ONLY)	22	5%	1W	R5906	1-216-841-11	METAL CHIP	47K	5%	1/10W
R5876	1-216-793-11	METAL CHIP	4.7	5%	1/10W						
						R5907	1-216-841-11	METAL CHIP	47K	5%	1/10W
R5877	1-216-793-11	METAL CHIP	4.7	5%	1/10W	R5908	1-216-841-11	METAL CHIP	47K	5%	1/10W
R5879	1-216-793-11	METAL CHIP	4.7	5%	1/10W	R5909	1-216-841-11	METAL CHIP	47K	5%	1/10W
R5880	1-216-793-11	METAL CHIP	4.7	5%	1/10W	R5912	1-216-841-11	METAL CHIP	47K	5%	1/10W
R5883	1-218-719-11	METAL CHIP (KV-30XBR910 ONLY)	13K	0.50%	1/10W	R5913	1-216-841-11	METAL CHIP	47K	5%	1/10W
R5883	1-218-722-11	METAL CHIP (KV-34XBR910 ONLY)	18K	0.50%	1/10W	R5914	1-218-730-11	METAL CHIP	39K	0.50%	1/10W
R5884	1-218-724-11	METAL CHIP	22K	0.50%	1/10W	R5915	1-218-716-11	METAL CHIP	10K	0.50%	1/10W
R5885	1-218-716-11	METAL CHIP	10K	0.50%	1/10W	R5916	1-218-724-11	METAL CHIP	22K	0.50%	1/10W
R5886	1-218-716-11	METAL CHIP	10K	0.50%	1/10W	R5918	1-218-722-11	METAL CHIP (KV-30XBR910 ONLY)	18K	0.50%	1/10W
R5887	1-218-708-11	METAL CHIP (KV-30XBR910 ONLY)	4.7K	0.50%	1/10W	R5918	1-218-726-11	METAL CHIP (KV-34XBR910 ONLY)	27K	0.50%	1/10W



REF. NO.	PART NO.	DESCRIPTION	VALUES			REF. NO.	PART NO.	DESCRIPTION	VALUES		
R5919	1-216-833-11	METAL CHIP	10K	5%	1/10W	<u>TRANSISTOR</u>					
R5920	1-216-864-11	SHORT CHIP				Q1051	8-729-423-33	TRANSISTOR	2SC3311A-QRSTA		
R5921	1-218-716-11	METAL CHIP	10K	0.50%	1/10	Q1052	8-729-119-76	TRANSISTOR	2SA1175-HFE		
R5922	1-218-716-11	METAL CHIP	10K	0.50%	1/10W	Q1060	8-729-423-33	TRANSISTOR	2SC3311A-QRSTA		
R5923	1-218-716-11	METAL CHIP	10K	0.50%	1/10W	Q1061	8-729-119-76	TRANSISTOR	2SA1175-HFE		
R5924	1-218-716-11	METAL CHIP	10K	0.50%	1/10W	<u>RESISTOR</u>					
R5925	1-216-833-11	METAL CHIP	10K	5%	1/10W	R1052	1-249-409-11	CARBON	220	5%	1/4W
R5926	1-216-864-11	SHORT CHIP				R1053	1-249-409-11	CARBON	220	5%	1/4W
R5928	1-216-809-11	METAL CHIP	100	5%	1/10W	R1054	1-249-433-11	CARBON	22K	5%	1/4W
R5930	1-216-864-11	SHORT CHIP				R1055	1-249-385-11	CARBON	2.2	5%	1/4W
<div>HCX</div>						R1056	1-249-417-11	CARBON	1K	5%	1/4W
*	A-1302-489-A HCX BOARD, COMPLETE (KV-34XBR910 ONLY)					R1057	1-249-417-11	CARBON	1K	5%	1/4W
*	A-1302-498-A HCX BOARD, COMPLETE (KV-30XBR910 ONLY)					R1058	1-215-442-00	METAL	7.5K	1%	1/4W
<u>CAPACITOR</u>						R1060	1-247-895-91	CARBON	470K	5%	1/4W
C1051	1-126-964-11	ELECT	10μF	20%	50V	R1061	1-249-429-11	CARBON	10K	5%	1/4W
C1053	1-126-964-11	ELECT	10μF	20%	50V	R1062	1-247-895-91	CARBON	470K	5%	1/4W
C1054	1-126-964-11	ELECT	10μF	20%	50V	R1063	1-249-429-11	CARBON	10K	5%	1/4W
C1060	1-130-471-00	MYLAR	0.001μF	5%	50V	R1064	1-215-453-00	METAL	22K	1%	1/4W
C1061	1-130-495-00	MYLAR	0.1μF	5%	50V	R1065	1-215-457-00	METAL	33K	1%	1/4W
C1063	1-126-947-11	ELECT	47μF	20%	35V	R1066	1-215-453-00	METAL	22K	1%	1/4W
C1064	1-137-150-11	FILM	0.01μF	5%	100V	R1067	1-215-461-00	METAL	47K	1%	1/4W
C1065	1-137-150-11	FILM	0.01μF	5%	100V	R1068	1-215-453-00	METAL	22K	1%	1/4W
C1066	1-137-150-11	FILM	0.01μF	5%	100V	R1069	1-215-465-00	METAL	68K	1%	1/4W
<u>CONNECTOR</u>						R1071	1-247-895-91	CARBON	470K	5%	1/4W
*	CN1052	1-564-509-11	PLUG, CONNECTOR	6P		R1072	1-249-429-11	CARBON	10K	5%	1/4W
*	CN1053	1-564-510-11	PLUG, CONNECTOR	7P		R1073	1-247-895-91	CARBON	470K	5%	1/4W
<u>DIODE</u>						R1075	1-249-429-11	CARBON	10K	5%	1/4W
D1051	8-719-070-80	DIODE	LNK0120022G			R1080	1-249-429-11	CARBON	10K	5%	1/4W
D1052	8-719-070-80	DIODE	LNK0120022G			R1081	1-249-437-11	CARBON	47K	5%	1/4W
D1057	8-719-991-33	DIODE	1SS133T-77			R1082	1-249-437-11	CARBON	47K	5%	1/4W
<u>IC</u>						R1083	1-249-429-11	CARBON	10K	5%	1/4W
IC1051	8-742-212-20	HYB IC	SBX3081-71			<u>SWITCH</u>					
IC1052	8-759-729-01	IC	NJM2901N			S1052	1-692-431-21	SWITCH, TACTILE			
IC1055	6-600-275-01	IC	MPXA6115AC7U			<u>THERMISTOR</u>					
						TH1051	1-807-796-11	THERMISTOR			


NOTE: The components identified by shading and  mark are critical for safety. Replace only with part number specified.


NOTE: Les composants identifiés par un trame et une marque  sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.








REF. NO.	PART NO.	DESCRIPTION	VALUES			REF. NO.	PART NO.	DESCRIPTION	VALUES			
<div>A</div>	*	A-1302-215-A A BOARD, COMPLETE (KV-34XBR910 ONLY)				C537	1-126-941-11	ELECT	470μF	20%	25V	
	*	A-1302-535-A A BOARD, COMPLETE (KV-30XBR910 ONLY)				C538	1-165-176-11	CERAMIC CHIP	0.047μF	10%	16V	
		4-382-854-01	SCREW (M3X8), P, SW (+)			C540	1-126-767-11	ELECT	1000μF	20%	16V	
		4-382-854-21	SCREW (M3X14), P, SW (+)			C541	1-162-961-11	CERAMIC CHIP	330pF	10%	50V	
* A188	4-374-846-11	COVER, CAPACITOR, CAP TYPE			C542	1-126-941-11	ELECT	470μF	20%	25V		
CAPACITOR												
	C501	1-165-529-11	MYLAR	0.22μF	10	275V	C547	1-126-767-11	ELECT	1000μF	20%	16V
⚠	C503	1-165-529-11	MYLAR	0.22μF	10	275V	C548	1-162-966-11	CERAMIC CHIP	0.0022μF	10%	50V
	C504	1-126-961-11	ELECT	2.2μF	20%	50V	C549	1-162-966-11	CERAMIC CHIP	0.0022μF	10%	50V
⚠	C505	1-127-794-51	CERAMIC	2200pF	20%	250V	C550	1-162-966-11	CERAMIC CHIP	0.0022μF	10%	50V
	C506	1-126-971-11	ELECT	470μF	20%	50V	C551	1-126-933-11	ELECT	100μF	20%	16V
	C507	1-126-943-11	ELECT	2200μF	20%	25V	C553	1-126-767-11	ELECT	1000μF	20%	16V
⚠	C508	1-127-794-51	CERAMIC	2200pF	20%	250V	C554	1-126-933-11	ELECT	100μF	20%	16V
	C510	1-164-156-11	CERAMIC CHIP	0.1μF		25V	C555	1-126-933-11	ELECT	100μF	20%	16V
⚠	C512	1-165-530-21	MYLAR	0.47μF	10	0V	C556	1-126-767-11	ELECT	1000μF	20%	16V
	C513	1-126-961-11	ELECT	2.2μF	20%	50V	C558	1-162-966-11	CERAMIC CHIP	0.0022μF	10%	50V
	C514	1-126-960-11	ELECT	1μF	20%	50V	C559	1-162-927-11	CERAMIC CHIP	100pF	5%	50V
	C515	1-126-947-11	ELECT	47μF	20%	35V	C560	1-126-935-11	ELECT	470μF	20%	16V
	C516	1-162-966-11	CERAMIC CHIP	0.0022μF	10%	50V	C561	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V
	C517	1-104-665-11	ELECT	100μF	20%	25V	C562	1-126-964-11	ELECT	10μF	20%	50V
	C518	1-126-967-11	ELECT	47μF	20%	50V	C563	1-126-947-11	ELECT	47μF	20%	35V
	C519	1-162-966-11	CERAMIC CHIP	0.0022μF	10%	50V	C564	1-162-966-11	CERAMIC CHIP	0.0022μF	10%	50V
	C520	1-162-966-11	CERAMIC CHIP	0.0022μF	10%	50V	C565	1-115-156-11	CERAMIC CHIP	1μF		10V
	C521	1-104-665-11	ELECT	100μF	20%	25V	C566	1-162-961-11	CERAMIC CHIP	330pF	10%	50V
	C522	1-126-964-11	ELECT	10μF	20%	50V	C567	1-165-176-11	CERAMIC CHIP	0.047μF	10%	16V
	C523	1-104-665-11	ELECT	100μF	20%	25V	C569	1-126-767-11	ELECT	1000μF	20%	16V
	C524	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V	C570	1-130-495-00	MYLAR	0.1μF	5%	50V
	C525	1-162-966-11	CERAMIC CHIP	0.0022μF	10%	50V	C571	1-130-495-00	MYLAR	0.1μF	5%	50V
	C526	1-162-927-11	CERAMIC CHIP	100pF	5%	50V	C574	1-126-960-11	ELECT	1μF	20%	50V
	C527	1-162-966-11	CERAMIC CHIP	0.0022μF	10%	50V	C577	1-126-960-11	ELECT	1μF	20%	50V
	C528	1-126-933-11	ELECT	100μF	20%	16V	C578	1-126-964-11	ELECT	10μF	20%	50V
	C530	1-126-941-11	ELECT	470μF	20%	25V	C579	1-126-964-11	ELECT	10μF	20%	50V
	C531	1-130-495-00	MYLAR	0.1μF	5%	50V	C580	1-126-964-11	ELECT	10μF	20%	50V
	C533	1-130-495-00	MYLAR	0.1μF	5%	50V	C582	1-130-495-00	MYLAR	0.1μF	5%	50V
	C535	1-115-156-11	CERAMIC CHIP	1μF		10V	C583	1-126-960-11	ELECT	1μF	20%	50V
	C536	1-126-933-11	ELECT	100μF	20%	16V	C584	1-126-960-11	ELECT	1μF	20%	50V
						C585	1-126-960-11	ELECT	1μF	20%	50V	
						C586	1-130-495-00	MYLAR	0.1μF	5%	50V	
						C587	1-126-960-11	ELECT	1μF	20%	50V	
						C588	1-162-964-11	CERAMIC CHIP	0.001μF	10%	50V	
						C589	1-130-495-00	MYLAR	0.1μF	5%	50V	
						C590	1-126-953-11	ELECT	2200μF	20%	35V	
						C591	1-126-935-11	ELECT	470μF	20%	16V	
						C592	1-126-935-11	ELECT	470μF	20%	16V	
						C593	1-126-935-11	ELECT	470μF	20%	16V	


— 139 —


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






REF. NO.	PART NO.	DESCRIPTION	VALUES	REF. NO.	PART NO.	DESCRIPTION	VALUES
D524	8-719-991-33	DIODE	1SS133T-77	CHIP CONDUCTOR			
D525	8-719-991-33	DIODE	1SS133T-77	JR501	1-216-864-11	SHORT CHIP	
D526	8-719-991-33	DIODE	1SS133T-77	JR502	1-216-864-11	SHORT CHIP	
D527	8-719-991-33	DIODE	1SS133T-77	JR509	1-216-864-11	SHORT CHIP	
D530	8-719-924-13	DIODE	MTZJ-T-77-22B	JR510	1-216-864-11	SHORT CHIP	
				JR511	1-216-864-11	SHORT CHIP	
D531	8-719-924-13	DIODE	MTZJ-T-77-22B				
D534	8-719-991-33	DIODE	1SS133T-77	JR512	1-216-864-11	SHORT CHIP	
D535	8-719-991-33	DIODE	1SS133T-77	JR513	1-216-864-11	SHORT CHIP	
D540	8-719-991-33	DIODE	1SS133T-77	JR514	1-216-864-11	SHORT CHIP	
D541	8-719-991-33	DIODE	1SS133T-77	JR515	1-216-864-11	SHORT CHIP	
				JR516	1-216-864-11	SHORT CHIP	
D900	8-719-110-31	DIODE	RD12ESB2	COIL			
D902	6-500-080-11	DIODE	21DQ04N-TA2B1	L501	1-469-320-21	INDUCTOR	100μH
D903	8-719-110-31	DIODE	RD12ESB2	L502	1-412-525-31	INDUCTOR	10μH
D905	8-719-991-33	DIODE	1SS133T-77	L503	1-469-320-21	INDUCTOR	100μH
	(KV-34XBR910 ONLY)			L504	1-469-317-21	INDUCTOR	10μH
				L505	1-469-320-21	INDUCTOR	100μH
FUSE							
 F501	1-532-506-51	FUSE	6.3A 250V	L506	1-469-320-21	INDUCTOR	100μH
				L507	1-469-317-21	INDUCTOR	10μH
				L508	1-412-529-11	INDUCTOR	22μH
FERRITE BEAD				 L510	1-433-404-11	TRANSFORMER, LINE FILTER	
FB500	1-412-911-11	FERRITE	0μH	 L511	1-433-404-11	TRANSFORMER, LINE FILTER	
FB502	1-412-911-11	FERRITE	0μH	L900	1-408-612-31	INDUCTOR	56μH
FUSE HOLDER				IC LINK			
FH501	1-533-223-11	FUSE HOLDER	0A 0V	 PS501	1-532-984-11	IC LINK	2A 50V
FH502	1-533-223-11	FUSE HOLDER	0A 0V	 PS502	1-532-984-11	IC LINK	2A 50V
				PS900	1-532-637-00	IC LINK	1A 50V
				PS901	1-532-637-00	IC LINK	1A 50V
IC							
IC501	8-759-450-47	IC	BA05T	TRANSISTOR			
IC502	8-759-520-49	IC	PQ30RV21	Q501	8-729-422-27	TRANSISTOR	2SD601A-Q
IC504	6-700-898-01	IC	PQ05RD21	Q502	8-729-424-02	TRANSISTOR	2SB709A-QRS-TX
IC505	8-759-653-07	IC	PQ09RD21	Q503	8-729-424-02	TRANSISTOR	2SB709A-QRS-TX
IC508	8-759-246-70	IC	TA8216H	Q504	8-729-424-02	TRANSISTOR	2SB709A-QRS-TX
				Q505	8-729-424-02	TRANSISTOR	2SB709A-QRS-TX
IC509	8-759-246-70	IC	TA8216H				
IC900	8-749-016-08	IC	STK390-910	Q506	8-729-424-02	TRANSISTOR	2SB709A-QRS-TX
IC903	8-759-595-52	IC	CXA8070AP	Q507	8-729-422-27	TRANSISTOR	2SD601A-Q
IC904	8-759-700-07	IC	NJM2903M	Q508	8-729-424-02	TRANSISTOR	2SB709A-QRS-TX
	(KV-34XBR910 ONLY)			Q509	8-729-422-27	TRANSISTOR	2SD601A-Q
				Q510	8-729-424-02	TRANSISTOR	2SB709A-QRS-TX


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REF. NO.	PART NO.	DESCRIPTION	VALUES				REF. NO.	PART NO.	DESCRIPTION	VALUES			
Q511	8-729-422-27	TRANSISTOR	2SD601A-Q				R528	1-216-833-11	METAL CHIP	10K	5%	1/10W	
Q512	8-729-424-02	TRANSISTOR	2SB709A-QRS-TX				R529	1-216-857-11	METAL CHIP	1M	5%	1/10W	
Q513	8-729-422-27	TRANSISTOR	2SD601A-Q				R530	1-216-847-11	METAL CHIP	150K	5%	1/10W	
Q514	8-729-424-02	TRANSISTOR	2SB709A-QRS-TX				R531	1-216-821-11	METAL CHIP	1K	5%	1/10W	
Q515	8-729-422-27	TRANSISTOR	2SD601A-Q				R532	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	
Q516	8-729-422-27	TRANSISTOR	2SD601A-Q				R533	1-216-833-11	METAL CHIP	10K	5%	1/10W	
Q517	8-729-422-27	TRANSISTOR	2SD601A-Q				R534	1-218-716-11	METAL CHIP	10K	0.50%	1/10W	
Q518	8-729-422-27	TRANSISTOR	2SD601A-Q				R535	1-218-722-11	METAL CHIP	18K	0.50%	1/10W	
Q519	8-729-422-27	TRANSISTOR	2SD601A-Q				R536	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	
Q524	8-729-422-27	TRANSISTOR	2SD601A-Q				R537	1-218-750-11	METAL CHIP	270K	0.50%	1/10W	
Q527	8-729-424-02	TRANSISTOR	2SB709A-QRS-TX				R538	1-216-823-11	METAL CHIP	1.5K	5%	1/10W	
Q900	8-729-424-02	TRANSISTOR	2SB709A-QRS-TX				R539	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	
Q901	8-729-422-27	TRANSISTOR	2SD601A-Q				R540	1-216-821-11	METAL CHIP	1K	5%	1/10W	
Q903	8-729-422-27	TRANSISTOR	2SD601A-Q				R541	1-216-833-11	METAL CHIP	10K	5%	1/10W	
Q904	8-729-422-27	TRANSISTOR	2SD601A-Q				R542	1-216-821-11	METAL CHIP	1K	5%	1/10W	
Q905	8-729-422-27	TRANSISTOR	2SD601A-Q				R543	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	
	(KV-34XBR910 ONLY)						R544	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	
Q906	8-729-422-27	TRANSISTOR	2SD601A-Q				R545	1-216-805-11	METAL CHIP	47	5%	1/10W	
	(KV-34XBR910 ONLY)						R546	1-216-805-11	METAL CHIP	47	5%	1/10W	
							R547	1-216-827-11	METAL CHIP	3.3K	5%	1/10W	
	RESISTOR						R548	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	
R501	1-216-864-11	SHORT CHIP					R550	1-216-845-11	METAL CHIP	100K	5%	1/10W	
R504	1-216-833-11	METAL CHIP	10K	5%	1/10W	R551	1-216-833-11	METAL CHIP	10K	5%	1/10W		
R505	1-216-833-11	METAL CHIP	10K	5%	1/10W	R552	1-216-837-11	METAL CHIP	22K	5%	1/10W		
R506	1-216-857-11	METAL CHIP	1M	5%	1/10W	R553	1-216-821-11	METAL CHIP	1K	5%	1/10W		
R507	1-247-895-91	CARBON	470K	5%	1/4W								
	R508	1-219-512-11	METAL	2.2M	5%	1/2W	R554	1-216-864-11	SHORT CHIP				
	R509	1-244-270-11	CEMENTED	0.47	5%	20W	R555	1-216-833-11	METAL CHIP	10K	5%	1/10W	
	R510	1-244-270-11	CEMENTED	0.47	5%	20W	R556	1-216-839-11	METAL CHIP	33K	5%	1/10W	
	R511	1-216-849-11	METAL CHIP	220K	5%	1/10W	R557	1-216-821-11	METAL CHIP	1K	5%	1/10W	
	R512	1-216-849-11	METAL CHIP	220K	5%	1/10W	R558	1-216-857-11	METAL CHIP	1M	5%	1/10W	
	R513	1-216-833-11	METAL CHIP	10K	5%	1/10W	R559	1-216-847-11	METAL CHIP	150K	5%	1/10W	
	R515	1-216-833-11	METAL CHIP	10K	5%	1/10W	R560	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	
	R516	1-216-857-11	METAL CHIP	1M	5%	1/10W	R563	1-216-823-11	METAL CHIP	1.5K	5%	1/10W	
	R517	1-216-805-11	METAL CHIP	47	5%	1/10W	R564	1-216-847-11	METAL CHIP	150K	5%	1/10W	
	R518	1-216-805-11	METAL CHIP	47	5%	1/10W	R565	1-216-821-11	METAL CHIP	1K	5%	1/10W	
	R519	1-216-839-11	METAL CHIP	33K	5%	1/10W	R566	1-216-864-11	SHORT CHIP				
	R520	1-216-837-11	METAL CHIP	22K	5%	1/10W	R567	1-216-864-11	SHORT CHIP				
	R521	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	R568	1-216-864-11	SHORT CHIP				
	R522	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	R569	1-216-864-11	SHORT CHIP				
	R524	1-216-833-11	METAL CHIP	10K	5%	1/10W	R570	1-216-833-11	METAL CHIP	10K	5%	1/10W	
	R525	1-216-833-11	METAL CHIP	10K	5%	1/10W	R572	1-216-809-11	METAL CHIP	100	5%	1/10W	
	R527	1-216-341-11	METAL OXIDE	0.22	5%	1W	R573	1-216-847-11	METAL CHIP	150K	5%	1/10W	
							R574	1-216-809-11	METAL CHIP	100	5%	1/10W	
							R575	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	


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REF. NO.	PART NO.	DESCRIPTION	VALUES			REF. NO.	PART NO.	DESCRIPTION	VALUES		
R576	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	R910	1-216-833-11	METAL CHIP	10K	5%	1/10W
R577	1-216-821-11	METAL CHIP	1K	5%	1/10W	R911	1-216-833-11	METAL CHIP	10K	5%	1/10W
R578	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	R912	1-216-385-11	METAL OXIDE	0.47	5%	3W
R579	1-216-821-11	METAL CHIP	1K	5%	1/10W	R913	1-216-845-11	METAL CHIP	100K	5%	1/10W
R580	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	R915	1-215-886-11	METAL OXIDE	100	5%	2W
R584	1-216-813-11	METAL CHIP	220	5%	1/10W	R918	1-218-708-11	METAL CHIP	4.7K	0.50%	1/10W
R585	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	R920	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R586	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	R921	1-218-708-11	METAL CHIP	4.7K	0.50%	1/10W
R587	1-216-833-11	METAL CHIP	10K	5%	1/10W	R922	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R588	1-216-833-11	METAL CHIP	10K	5%	1/10W	R927	1-218-716-11	METAL CHIP	10K	0.50%	1/10W
R589	1-216-833-11	METAL CHIP	10K	5%	1/10W	R930	1-218-708-11	METAL CHIP	4.7K	0.50%	1/10W
R590	1-216-813-11	METAL CHIP	220	5%	1/10W	R933	1-218-712-11	METAL CHIP	6.8K	0.50%	1/10W
R591	1-216-821-11	METAL CHIP	1K	5%	1/10W	R939	1-216-805-11	METAL CHIP	47	5%	1/10W
R592	1-216-833-11	METAL CHIP	10K	5%	1/10W	R942	1-216-429-00	METAL OXIDE	270	5%	1W
R595	1-216-813-11	METAL CHIP	220	5%	1/10W	R945	1-216-805-11	METAL CHIP	47	5%	1/10W
R596	1-216-833-11	METAL CHIP	10K	5%	1/10W	R948	1-216-833-11	METAL CHIP	10K	5%	1/10W
R598	1-216-833-11	METAL CHIP	10K	5%	1/10W	R949	1-218-708-11	METAL CHIP	4.7K	0.50%	1/10W
R599	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	R950	1-218-712-11	METAL CHIP	6.8K	0.50%	1/10W
R600	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	R951	1-216-833-11	METAL CHIP	10K	5%	1/10W
R601	1-216-813-11	METAL CHIP	220	5%	1/10W	R954	1-216-821-11	METAL CHIP	1K	5%	1/10W
R602	1-216-833-11	METAL CHIP	10K	5%	1/10W	R955	1-216-821-11	METAL CHIP	1K	5%	1/10W
R603	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	R956	1-216-833-11	METAL CHIP	10K	5%	1/10W
R604	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	R957	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R606	1-216-833-11	METAL CHIP	10K	5%	1/10W	R958	1-216-821-11	METAL CHIP	1K	5%	1/10W
R607	1-216-833-11	METAL CHIP	10K	5%	1/10W	R960	1-216-864-11	SHORT CHIP			
R608	1-216-821-11	METAL CHIP	1K	5%	1/10W	R961	1-218-716-11	METAL CHIP	10K	0.50%	1/10W
R610	1-216-821-11	METAL CHIP	1K	5%	1/10W		(KV-34XBR910 ONLY)				
R611	1-216-833-11	METAL CHIP	10K	5%	1/10W	R962	1-218-716-11	METAL CHIP	10K	0.50%	1/10W
R615	1-249-385-11	CARBON	2.2	5%	1/4W		(KV-34XBR910 ONLY)				
R617	1-249-385-11	CARBON	2.2	5%	1/4W	R963	1-218-708-11	METAL CHIP	4.7K	0.50%	1/10W
R619	1-249-385-11	CARBON	2.2	5%	1/4W		(KV-34XBR910 ONLY)				
R622	1-249-385-11	CARBON	2.2	5%	1/4W	R964	1-218-710-11	METAL CHIP	5.6K	0.50%	1/10W
R628	1-249-429-11	CARBON	10K	5%	1/4W		(KV-34XBR910 ONLY)				
R629	1-249-429-11	CARBON	10K	5%	1/4W	R965	1-218-692-11	METAL CHIP	1K	0.50%	1/10W
R631	1-249-429-11	CARBON	10K	5%	1/4W		(KV-34XBR910 ONLY)				
R632	1-249-429-11	CARBON	10K	5%	1/4W	R966	1-218-724-11	METAL CHIP	22K	0.50%	1/10W
R635	1-216-833-11	METAL CHIP	10K	5%	1/10W		(KV-34XBR910 ONLY)				
R636	1-216-833-11	METAL CHIP	10K	5%	1/10W	R967	1-216-833-11	METAL CHIP	10K	5%	1/10W
R643	1-216-864-11	SHORT CHIP					(KV-34XBR910 ONLY)				
R644	1-216-864-11	SHORT CHIP				R968	1-216-833-11	METAL CHIP	10K	5%	1/10W
R646	1-216-864-11	SHORT CHIP					(KV-34XBR910 ONLY)				
R900	1-216-864-11	SHORT CHIP				RELAY					
R904	1-216-343-00	METAL OXIDE	0.33	5%	1W	 RY501	1-755-389-11	RELAY (AC POWER)			
R909	1-216-843-11	METAL CHIP	68K	5%	1/10W						


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REF. NO.	PART NO.	DESCRIPTION	VALUES	REF. NO.	PART NO.	DESCRIPTION	VALUES
TRANSFORMER				C9033	1-107-662-11	ELECT	22μF 20% 350V
T502	1-437-697-11	TRANSFORMER, STANDBY		C9036	1-115-339-11	CERAMIC CHIP	0.1μF 10% 50V
THERMISTOR				C9042	1-128-527-11	ELECT	330μF 20% 25V
 TH501	1-803-970-11	THERMISTOR, POSITIVE		C9044	1-126-934-11	ELECT	220μF 20% 16V
TUNER				C9045	1-164-004-11	CERAMIC CHIP	0.1μF 10% 25V
TU501	8-598-594-20	TUNER, FSS BTF-FA421		C9046	1-126-933-11	ELECT	100μF 20% 16V
TU502	8-598-593-40	TUNER, FSS BTF-WA421		C9048	1-164-004-11	CERAMIC CHIP	0.1μF 10% 25V
VARISTOR				C9049	1-164-004-11	CERAMIC CHIP	0.1μF 10% 25V
 VD501	1-804-992-21	VARISTOR		C9050	1-164-004-11	CERAMIC CHIP	0.1μF 10% 25V
CAPACITOR				C9051	1-165-319-11	CERAMIC CHIP	0.1μF 50V
				CONNECTOR			
				* CN9001	1-764-334-11	PIN, CONNECTOR(PCB)(V TYPE)	11P
				* CN9002	1-564-507-11	PLUG, CONNECTOR	4P
				CN9003	1-695-915-11	TAB (CONTACT)	
				CN9004	1-695-915-11	TAB (CONTACT)	
				CN9009	1-785-879-11	CONNECTOR, ONE TOUCH	
				DIODE			
				D9005	8-719-404-50	DIODE	MA111-TX
				D9006	8-719-051-85	DIODE	HSS83TD
				D9007	8-719-051-85	DIODE	HSS83TD
				D9008	8-719-051-85	DIODE	HSS83TD
				D9009	8-719-908-03	DIODE	GP08D
				D9010	8-719-110-17	DIODE	RD10ESB2
				IC			
				IC9001	8-759-680-01	IC	TDA6120Q/N2/S1
				IC9002	8-759-680-01	IC	TDA6120Q/N2/S1
				IC9003	8-759-680-01	IC	TDA6120Q/N2/S1
				JACK			
				 J9001	1-451-544-11	SOCKET, CRT	
				COIL			
				L9002	1-408-592-11	INDUCTOR	1.2μH
				L9003	1-408-592-11	INDUCTOR	1.2μH
				L9004	1-408-592-11	INDUCTOR	1.2μH
				L9005	1-406-666-21	INDUCTOR	150μH
				L9006	1-412-526-11	INDUCTOR	12μH

NOTE: The components identified by shading and  mark are critical for safety. Replace only with part number specified.

NOTE: Les composants identifiés par un trame et une marque  sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.



REF. NO.	PART NO.	DESCRIPTION	VALUES			REF. NO.	PART NO.	DESCRIPTION	VALUES		
NEON LAMP						R9036	1-216-083-00	RES-CHIP	27K	5%	1/10W
NL9003	1-519-421-11	GAP, DISCHARGE				R9037	1-215-926-00	METAL OXIDE	33K	5%	3W
TRANSISTOR						R9039	1-216-025-11	RES-CHIP	100	5%	1/10W
Q9001	8-729-424-02	TRANSISTOR	2SB709A-QRS-TX			R9041	1-216-083-00	RES-CHIP	27K	5%	1/10W
Q9003	8-729-422-27	TRANSISTOR	2SD601A-Q			R9042	1-216-083-00	RES-CHIP	27K	5%	1/10W
Q9004	8-729-422-27	TRANSISTOR	2SD601A-Q			R9043	1-215-926-00	METAL OXIDE	33K	5%	3W
Q9005	8-729-422-27	TRANSISTOR	2SD601A-Q			R9044	1-215-926-00	METAL OXIDE	33K	5%	3W
Q9007	8-729-141-73	TRANSISTOR	2SC3624A-T1L15L16			R9047	1-219-744-11	METAL	220	5%	1/2W
Q9009	8-729-424-02	TRANSISTOR	2SB709A-QRS-TX			R9048	1-216-049-11	RES-CHIP	1K	5%	1/10W
Q9010	8-729-424-02	TRANSISTOR	2SB709A-QRS-TX			R9049	1-216-049-11	RES-CHIP	1K	5%	1/10W
Q9011	8-729-424-02	TRANSISTOR	2SB709A-QRS-TX			R9051	1-219-744-11	METAL	220	5%	1/2W
Q9013	8-729-141-73	TRANSISTOR	2SC3624A-T1L15L16			R9052	1-219-744-11	METAL	220	5%	1/2W
Q9014	8-729-823-81	TRANSISTOR	2SC4632LS-CB7			R9056	1-219-743-11	METAL	100	5%	1/2W
Q9015	8-729-141-73	TRANSISTOR	2SC3624A-T1L15L16			R9057	1-219-510-11	METAL	470K	5%	1/2W
RESISTOR						R9059	1-219-746-11	METAL	1K	5%	1/2W
R9001	1-216-633-11	METAL CHIP	180	0.50%	1/10W	R9061	1-219-743-11	METAL	100	5%	1/2W
R9006	1-216-073-91	RES-CHIP	10K	5%	1/10W	R9062	1-260-123-11	CARBON	100K	5%	1/2W
R9007	1-208-783-11	METAL CHIP	1.1K	0.50%	1/10W	R9063	1-216-097-11	RES-CHIP	100K	5%	1/10W
R9012	1-216-295-91	SHORT CHIP				R9070	1-249-403-11	CARBON	68	5%	1/4W
R9013	1-216-049-11	RES-CHIP	1K	5%	1/10W	R9071	1-247-807-31	CARBON	100	5%	1/4W
R9014	1-216-033-00	RES-CHIP	220	5%	1/10W	R9072	1-216-025-11	RES-CHIP	100	5%	1/10W
R9015	1-249-409-11	CARBON	220	5%	1/4W	R9073	1-216-049-11	RES-CHIP	1K	5%	1/10W
R9016	1-216-033-00	RES-CHIP	220	5%	1/10W	R9074	1-208-782-11	METAL CHIP	1K	0.50%	1/10W
R9018	1-216-633-11	METAL CHIP	180	0.50%	1/10W	R9077	1-216-073-91	RES-CHIP	10K	5%	1/10W
R9019	1-216-633-11	METAL CHIP	180	0.50%	1/10W	R9089	1-208-803-11	METAL CHIP	7.5K	0.50%	1/10W
R9020	1-216-025-11	RES-CHIP	100	5%	1/10W	R9091	1-215-429-00	METAL	2.2K	1%	1/4W
R9021	1-216-103-00	RES-CHIP	180K	5%	1/10W	R9092	1-216-295-91	SHORT CHIP			
R9022	1-216-073-91	RES-CHIP	10K	5%	1/10W	R9094	1-216-295-91	SHORT CHIP			
R9023	1-216-103-00	RES-CHIP	180K	5%	1/10W	R9095	1-216-295-91	SHORT CHIP			
R9025	1-216-025-11	RES-CHIP	100	5%	1/10W	VARIABLE RESISTOR					
R9026	1-208-783-11	METAL CHIP	1.1K	0.50%	1/10W	 RV9001	1-241-714-11	RES, ADJ, METAL FILM"	110M		
R9027	1-216-103-00	RES-CHIP	180K	5%	1/10W						
R9028	1-216-103-00	RES-CHIP	180K	5%	1/10W						
R9029	1-216-073-91	RES-CHIP	10K	5%	1/10W						
R9030	1-216-073-91	RES-CHIP	10K	5%	1/10W						
R9031	1-208-783-11	METAL CHIP	1.1K	0.50%	1/10W						
R9032	1-216-103-00	RES-CHIP	180K	5%	1/10W						
R9033	1-215-435-00	METAL	3.9K	1%	1/4W						
R9034	1-215-428-00	METAL	2K	1%	1/4W						
R9035	1-216-103-00	RES-CHIP	180K	5%	1/10W						



REF. NO.	PART NO.	DESCRIPTION	VALUES				
<div>HAX</div>							
*	A-1405-292-A	HAX BOARD, MOUNTED					
<div>CONNECTOR</div>							
*	CN1001	1-764-333-11	PIN, CONNECTOR(PCB)(V TYPE)		10P		
*	CN1002	1-564-509-11	PLUG, CONNECTOR		6P		
<div>RESISTOR</div>							
R1002	1-249-431-11	CARBON	15K	5%	1/4W		
R1003	1-249-413-11	CARBON	470	5%	1/4W		
R1004	1-249-415-11	CARBON	680	5%	1/4W		
R1005	1-249-417-11	CARBON	1K	5%	1/4W		
R1006	1-249-421-11	CARBON	2.2K	5%	1/4W		
R1007	1-249-425-11	CARBON	4.7K	5%	1/4W		
R1009	1-249-413-11	CARBON	470	5%	1/4W		
R1010	1-249-415-11	CARBON	680	5%	1/4W		
R1011	1-249-417-11	CARBON	1K	5%	1/4W		
R1012	1-249-421-11	CARBON	2.2K	5%	1/4W		
R1013	1-249-425-11	CARBON	4.7K	5%	1/4W		
<div>SWITCH</div>							
S1001	1-762-837-11	SWITCH, TACTILE					
S1002	1-762-837-11	SWITCH, TACTILE					
S1003	1-692-431-21	SWITCH, TACTILE					
S1004	1-762-837-11	SWITCH, TACTILE					
S1005	1-692-431-21	SWITCH, TACTILE					
S1006	1-762-837-11	SWITCH, TACTILE					
S1007	1-692-431-21	SWITCH, TACTILE					
S1008	1-762-837-11	SWITCH, TACTILE					

REF. NO.	PART NO.	DESCRIPTION	VALUES				
<div>HB</div>							
*	A-1405-295-A	HB BOARD, MOUNTED					
<div>CAPACITOR</div>							
C1100	1-126-960-11	ELECT	1μF	20%	50V		
C1101	1-126-960-11	ELECT	1μF	20%	50V		
<div>CONNECTOR</div>							
*	CN1100	1-764-334-11	PIN, CONNECTOR(PCB)(V TYPE)		11P		
<div>DIODE</div>							
D1100	8-719-977-28	DIODE			DTZ10B		
D1101	8-719-977-28	DIODE			DTZ10B		
D1103	8-719-977-28	DIODE			DTZ10B		
<div>FILTER</div>							
FL1103	1-409-755-11	FERRITE			0μH		
FL1104	1-409-755-11	FERRITE			0μH		
<div>JACK</div>							
J1100	1-770-053-12	TERMINAL BLOCK, S(LIGHT ANGLE)					
<div>CHIP CONDUCTOR</div>							
JR1100	1-216-864-11	SHORT CHIP					
JR1101	1-216-864-11	SHORT CHIP					
JR1102	1-216-864-11	SHORT CHIP					
JR1103	1-216-864-11	SHORT CHIP					
JR1104	1-216-864-11	SHORT CHIP					
JR1105	1-216-864-11	SHORT CHIP					
JR1106	1-216-864-11	SHORT CHIP					
JR1107	1-216-864-11	SHORT CHIP					
<div>RESISTOR</div>							
R1100	1-216-853-11	METAL CHIP	470K	5%	1/10W		
R1101	1-216-853-11	METAL CHIP	470K	5%	1/10W		
R1102	1-218-665-11	METAL CHIP	75	0.50%	1/10W		

WX



REF. NO.	PART NO.	DESCRIPTION	VALUES	REF. NO.	PART NO.	DESCRIPTION	VALUES
<u>COIL</u>				R9111	1-216-805-11	METAL CHIP	47 5% 1/10W
L9100	1-412-525-31	INDUCTOR	10μH	R9112	1-249-389-11	CARBON	4.7 5% 1/4W
L9101	1-406-674-11	INDUCTOR	3.3MH	R9113	1-249-389-11	CARBON	4.7 5% 1/4W
L9102	1-406-664-21	INDUCTOR	68μH	R9114	1-249-389-11	CARBON	4.7 5% 1/4W
				R9115	1-249-389-11	CARBON	4.7 5% 1/4W
<u>TRANSISTOR</u>				R9116	1-249-389-11	CARBON	4.7 5% 1/4W
Q9100	8-729-422-27	TRANSISTOR	2SD601A-Q	R9117	1-249-389-11	CARBON	4.7 5% 1/4W
Q9101	8-729-422-27	TRANSISTOR	2SD601A-Q	R9118	1-249-389-11	CARBON	4.7 5% 1/4W
Q9102	8-729-424-02	TRANSISTOR	2SB709A-QRS-TX	R9119	1-249-389-11	CARBON	4.7 5% 1/4W
Q9103	8-729-422-27	TRANSISTOR	2SD601A-Q	R9120	1-218-867-11	METAL CHIP	6.8K 0.50% 1/10W
Q9104	8-729-424-02	TRANSISTOR	2SB709A-QRS-TX	R9121	1-216-848-11	METAL CHIP	180K 5% 1/10W
Q9105	8-729-422-27	TRANSISTOR	2SD601A-Q	R9122	1-216-847-11	METAL CHIP	150K 5% 1/10W
Q9106	8-729-424-02	TRANSISTOR	2SB709A-QRS-TX	R9123	1-216-848-11	METAL CHIP	180K 5% 1/10W
Q9107	8-729-422-27	TRANSISTOR	2SD601A-Q	R9124	1-216-847-11	METAL CHIP	150K 5% 1/10W
Q9108	8-729-424-02	TRANSISTOR	2SB709A-QRS-TX	R9125	1-218-867-11	METAL CHIP	6.8K 0.50% 1/10W
Q9109	8-729-422-27	TRANSISTOR	2SD601A-Q	R9126	1-216-805-11	METAL CHIP	47 5% 1/10W
Q9110	8-729-045-04	TRANSISTOR	2SC5511	R9127	1-216-805-11	METAL CHIP	47 5% 1/10W
Q9111	8-729-045-05	TRANSISTOR	2SA2005	R9128	1-215-888-00	METAL OXIDE	220 5% 2W
Q9112	8-729-422-27	TRANSISTOR	2SD601A-Q	R9130	1-218-700-11	METAL CHIP	2.2K 0.50% 1/10W
Q9113	8-729-422-27	TRANSISTOR	2SD601A-Q	R9131	1-218-730-11	METAL CHIP	39K 0.50% 1/10W
Q9114	8-729-422-27	TRANSISTOR	2SD601A-Q	R9132	1-218-713-11	METAL CHIP	7.5K 0.50% 1/10W
Q9115	8-729-422-27	TRANSISTOR	2SD601A-Q	R9133	1-249-391-11	CARBON	6.8 5% 1/4W
Q9116	8-729-422-27	TRANSISTOR	2SD601A-Q	R9134	1-249-383-11	CARBON	1.5 5% 1/4W
Q9117	8-729-422-27	TRANSISTOR	2SD601A-Q	R9135	1-218-692-11	METAL CHIP	1K 0.50% 1/10W
Q9118	8-729-424-02	TRANSISTOR	2SB709A-QRS-TX	R9138	1-218-712-11	METAL CHIP	6.8K 0.50% 1/10W
Q9119	8-729-048-49	TRANSISTOR	2SK3262-01MR-F119	R9139	1-218-692-11	METAL CHIP	1K 0.50% 1/10W
Q9121	8-729-422-27	TRANSISTOR	2SD601A-Q	R9140	1-216-864-11	SHORT CHIP	
Q9122	8-729-422-27	TRANSISTOR	2SD601A-Q	R9141	1-214-657-11	METAL	1 1% 1/4W
Q9123	8-729-424-02	TRANSISTOR	2SB709A-QRS-TX	R9142	1-214-657-11	METAL	1 1% 1/4W
Q9124	8-729-424-02	TRANSISTOR	2SB709A-QRS-TX	R9143	1-216-429-00	METAL OXIDE	270 5% 1W
Q9125	8-729-422-27	TRANSISTOR	2SD601A-Q	R9144	1-215-867-00	METAL OXIDE	470 5% 1W
<u>RESISTOR</u>				R9146	1-249-385-11	CARBON	2.2 5% 1/4W
R9101	1-216-805-11	METAL CHIP	47 5% 1/10W	R9147	1-218-726-11	METAL CHIP	27K 0.50% 1/10W
R9102	1-260-322-11	CARBON	330 5% 1/2W	R9148	1-218-722-11	METAL CHIP	18K 0.50% 1/10W
R9103	1-216-819-11	METAL CHIP	680 5% 1/10W	(KV-30XBR910 ONLY)			
R9104	1-216-820-11	METAL CHIP	820 5% 1/10W	R9148	1-218-724-11	METAL CHIP	22K 0.50% 1/10W
R9105	1-216-837-11	METAL CHIP	22K 5% 1/10W	(KV-34XBR910 ONLY)			
R9106	1-218-715-11	METAL CHIP	9.1K 0.50% 1/10W	R9149	1-216-833-11	METAL CHIP	10K 5% 1/10W
R9107	1-216-809-11	METAL CHIP	100 5% 1/10W	R9151	1-218-716-11	METAL CHIP	10K 0.50% 1/10W
R9108	1-216-817-11	METAL CHIP	470 5% 1/10W	R9152	1-218-704-11	METAL CHIP	3.3K 0.50% 1/10W
R9109	1-216-817-11	METAL CHIP	470 5% 1/10W	R9153	1-218-716-11	METAL CHIP	10K 0.50% 1/10W
R9110	1-216-805-11	METAL CHIP	47 5% 1/10W	R9154	1-218-732-11	METAL CHIP	47K 0.50% 1/10W
				R9155	1-216-857-11	METAL CHIP	1M 5% 1/10W
				R9156	1-218-692-11	METAL CHIP	1K 0.50% 1/10W



REF. NO.	PART NO.	DESCRIPTION	VALUES			REF. NO.	PART NO.	DESCRIPTION	VALUES
R9158	1-216-837-11	METAL CHIP	22K	5%	1/10W	<u>ACCESSORIES AND PACKING</u>			
R9159	1-216-864-11	SHORT CHIP				*	4-093-813-01	CARTON, HSC (KV-30XBR910 ONLY)	
R9160	1-218-724-11	METAL CHIP	22K	0.50%	1/10W	*	4-093-818-01	CARTON, HSC (KV-34XBR910 ONLY)	
R9162	1-216-839-11	METAL CHIP	33K	5%	1/10W				
R9164	1-216-839-11	METAL CHIP	33K	5%	1/10W	*	4-095-160-01	CUSHION, UPPER (FRONT) (KV-34XBR910 ONLY)	
R9166	1-218-716-11	METAL CHIP	10K	0.50%	1/10W	*	4-095-161-01	CUSHION, UPPER (REAR) (KV-34XBR910 ONLY)	
R9167	1-218-732-11	METAL CHIP	47K	0.50%	1/10W	*	4-096-026-01	CUSHION, UPPER (KV-30XBR910 ONLY)	
R9168	1-216-839-11	METAL CHIP	33K	5%	1/10W				
R9169	1-216-841-11	METAL CHIP	47K	5%	1/10W	*	4-095-159-01	CUSHION, LOWER (KV-34XBR910 ONLY)	
R9170	1-216-841-11	METAL CHIP	47K	5%	1/10W	*	4-096-025-01	CUSHION, LOWER (KV-30XBR910 ONLY)	
R9171	1-249-401-11	CARBON	47	5%	1/4W		4-094-064-31	MANUAL, INSTRUCTION (KV-30XBR910/34XBR910 CND ONLY)	
R9172	1-216-809-11	METAL CHIP	100	5%	1/10W				
R9173	1-215-888-00	METAL OXIDE	220	5%	2W				
R9174	1-216-352-11	METAL OXIDE	1.8	5%	1W	*	4-066-845-11	BAG, PROTECTION	
R9175	1-218-740-11	METAL CHIP	100K	0.50%	1/10W		4-094-064-21	MANUAL, INSTRUCTION	
R9176	1-218-724-11	METAL CHIP	22K	0.50%	1/10W		<u>REMOTE COMMANDER</u>		
R9177	1-216-864-11	SHORT CHIP					1-468-681-11	REMOTE COMMANDER RM-Y188	
R9179	1-216-864-11	SHORT CHIP					4-081-888-01	COVER, BATTERY (FOR RM-Y188)	
R9180	1-218-716-11 (KV-30XBR910 ONLY)	METAL CHIP	10K	0.50%	1/10W				
R9180	1-218-724-11 (KV-34XBR910 ONLY)	METAL CHIP	22K	0.50%	1/10W				
R9181	1-218-740-11	METAL CHIP	100K	0.50%	1/10W				
R9182	1-218-740-11	METAL CHIP	100K	0.50%	1/10W				
R9185	1-249-385-11	CARBON	2.2	5%	1/4W				
R9186	1-216-833-11	METAL CHIP	10K	5%	1/10W				
R9187	1-249-389-11	CARBON	4.7	5%	1/4W				
R9188	1-249-389-11	CARBON	4.7	5%	1/4W				
R9189	1-249-389-11	CARBON	4.7	5%	1/4W				
R9190	1-249-389-11	CARBON	4.7	5%	1/4W				

In an effort to reduce the size of this pdf file the tiled schematics are not attached to this Service Manual. To receive a complete set of the tiled schematics for this manual please submit a request to Nita Wardlaw at nita.wardlaw@am.sony.com.

SONY®

4-094-064-21



FD Trinitron
WEGA



Operating Instructions

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XBR


MEMORY STICK

WARNING

To reduce the risk of fire or shock hazard, do not expose the TV to rain or moisture.



This symbol is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



This symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

CAUTION

TO PREVENT ELECTRIC SHOCK, MATCH WIDE BLADE OF PLUG TO WIDE SLOT, FULLY INSERT.

CAUTION

When using TV games, computers, and similar products with your TV, keep the brightness and contrast functions at low settings. If a fixed (non-moving) pattern is left on the screen for long periods of time at a high brightness or contrast setting, the image can be permanently imprinted onto the screen. Continuously watching the same program can cause the imprint of station logos onto the TV screen. These types of imprints are not covered by your warranty because they are the result of misuse.

Note on Caption Vision

This television receiver provides display of television closed captioning in accordance with §15.119 of the FCC rules.

Note on Cleaning the TV

Clean the TV with a soft, dry cloth. Never use strong solvents such as thinner or benzene, which might damage the finish of the cabinet.

Note to CATV System Installer

This reminder is provided to call the CATV system installer's attention to Article 820-40 of the National Electrical Code (NEC) that provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building, as close to the point of cable entry as practical.

Use of this television receiver for other than private viewing of programs broadcast on UHF or VHF or transmitted by cable companies for the use of the general public may require authorization from the broadcaster/cable company and/or program owner.

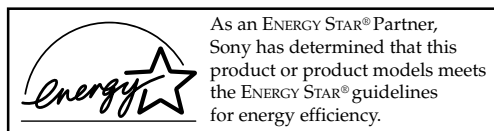
NOTIFICATION

This equipment has been tested and found to comply with the limits for a Class B digital device pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference with radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- ☐ Reorient or relocate the receiving antennas.
 - ☐ Increase the separation between the equipment and receiver.
 - ☐ Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
 - ☐ Consult the dealer or an experienced radio/TV technician for help.
- You are cautioned that any changes or modifications not expressly approved in this manual could void your authority to operate this equipment.

Installing

- ☐ To prevent internal heat buildup, do not block the ventilation openings.
- ☐ Do not install the TV in a hot or humid place, or in a place subject to excessive dust or mechanical vibration.
- ☐ The AC power cord is attached to the rear of the TV with hooks. Do not attempt to remove the cord from these hooks. Doing so could cause damage to the TV.




ENERGY STAR® is a U.S. registered mark.

Owner's Record

The model and serial numbers are provided on the front of this instruction manual and at the rear of the TV. Refer to them whenever you call upon your Sony dealer regarding this product.

Trademark Information

TruSurround and the  symbol are trademarks of SRS Labs, Inc. TruSurround technology is incorporated under license from SRS Labs, Inc.

BBE and BBE Symbol are trademarks of BBE Sound, Inc. and are licensed by BBE Sound, Inc. under U.S. Patent No. 4,638,258 and 4,482,866.

Wega, FD Trinitron, Steady Sound, Digital Reality Creation, Caption Vision, CineMotion, Memory Stick, and Twin View are registered trademarks of Sony Corporation. ClearEdge VM and HD Detailer are trademarks of Sony Corporation.

IMPORTANT SAFEGUARDS

For your protection, please read these instructions completely, and keep this manual for future reference.

Carefully observe and comply with all warnings, cautions and instructions placed on the set, or described in the operating instructions or service manual.

WARNING

To guard against injury, the following basic safety precautions should be observed in the installation, use, and servicing of the set.

Use

Power Sources

This set should be operated only from the type of power source indicated on the serial/model plate. If you are not sure of the type of electrical power supplied to your home, consult your dealer or local power company. For those sets designed to operate from battery power, refer to the operating instructions.

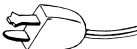


Grounding or Polarization

This set is equipped with a polarized AC power cord plug (a plug having one blade wider than the other), or with a three-wire grounding type plug (a plug having a third pin for grounding). Follow the instructions below:

For the set with a polarized AC power cord plug

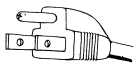
This plug will fit into the power outlet only one way. This is a safety feature. If you are unable to insert the plug fully into the outlet, try reversing the plug. If the plug should still fail to fit, contact your electrician to have a suitable outlet installed. Do not defeat the safety purpose of the polarized plug by forcing it in.



Alternate Warning

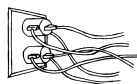
For the set with a three-wire grounding type AC plug

This plug will only fit into a grounding-type power outlet. This is a safety feature. If you are unable to insert the plug into the outlet, contact your electrician to have a suitable outlet installed. Do not defeat the safety purpose of the grounding plug.



Overloading

Do not overload wall outlets, extension cords or convenience receptacles beyond their capacity, since this can result in fire or electric shock.



Always turn the set off when it is not to be used. When the set is left unattended and unused for long periods of time, unplug it from the wall outlet as a precaution against the possibility of an internal malfunction that could create a fire hazard.



Do not disconnect the antenna or the power cord during a heavy storm. Lightning may strike while you are holding the cable or cord, causing serious injury. Turn off your TV and wait for the weather to improve.

Memory Stick

To protect small children from injury from Memory Stick Media, remove all Memory Stick media from the TV's Memory Stick slot and store it in a safe location when it is not in use.

Object and Liquid Entry

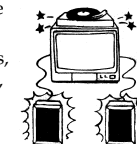
Never push objects of any kind into the set through the cabinet slots as they may touch dangerous voltage points or short out parts that could result in a fire or electric shock. Never spill liquid of any kind on the set.



Attachments

Do not use attachments not recommended by the manufacturer, as they may cause hazards.

Do not place any objects, especially heavy objects, on top of the set. The object may fall from the set, causing injury.

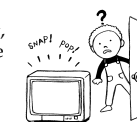


Cleaning

Unplug the set from the wall outlet before cleaning or polishing it. Do not use liquid cleaners or aerosol cleaners. Use a cloth lightly dampened with water for cleaning the exterior of the set.



If a snapping or popping sound from a TV set is continuous or frequent while the TV is operating, unplug the TV and consult your dealer or service technician. It is normal for some TV sets to make occasional snapping or popping sounds, particularly when being turned on or off.



Installation

Always use two or more people to lift or move the set. The set is heavy and the bottom surface is flat. Serious injury can result from trying to move the set by yourself alone, or from unsteady handling. Install the set on a stable, level surface.

Water and Moisture

Do not use power-line operated sets near water — for example, near a bathtub, washbowl, kitchen sink, or laundry tub, in a wet basement, or near a swimming pool, etc.



Accessories

Do not place the set on an unstable cart, stand, tripod, bracket, table or shelf. The set may fall, causing serious injury to a child or an adult, and serious damage to the set. Use only a cart or stand recommended by the manufacturer for the specific model of TV. Any mounting of the product should follow the manufacturer's instructions, and should use a mounting accessory recommended by the manufacturer. An appliance and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the appliance and cart combination to overturn.



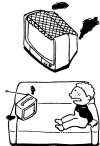
Disconnect all cables and cords from the set before attempting to move the set.

Do not allow children or pets to climb up onto, or push against, the set. The set may fall, causing serious injury.

Ventilation

The slots and openings in the cabinet and in the back or bottom are provided for necessary ventilation. To ensure reliable operation of the set, and to protect it from overheating, these slots and openings must never be blocked or covered.

- ❑ Never cover the slots and openings with a cloth or other materials.
- ❑ Never block the slots and openings by placing the set on a bed, sofa, rug or other similar surface.
- ❑ Never place the set in a confined space, such as a bookcase, or built-in cabinet, unless proper ventilation is provided.
- ❑ Do not place the set near or over a radiator or heat register, or where it is exposed to direct sunlight.



Power Cord Protection

Do not allow anything to rest on or roll over the power cord, and do not place the set where the power cord is subject to wear or abuse.



Antennas

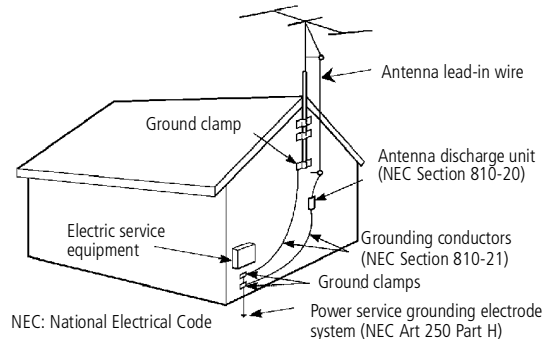
Outdoor Antenna Grounding

If an outdoor antenna is installed, follow the precautions below. An outdoor antenna system should not be located in the vicinity of overhead power lines or other electric light or power circuits, or where it can come in contact with such power lines or circuits.

WHEN INSTALLING AN OUTDOOR ANTENNA SYSTEM, EXTREME CARE SHOULD BE TAKEN TO KEEP FROM CONTACTING SUCH POWER LINES OR CIRCUITS AS CONTACT WITH THEM IS ALMOST INVARIABLY FATAL.

Be sure the antenna system is grounded so as to provide some protection against voltage surges and built-up static charges. Section 810 of the National Electrical Code (NEC) in USA and Section 54 of the Canadian Electrical Code in Canada provide information with respect to proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna discharge unit, size of grounding conductors, location of antenna discharge unit, connection to grounding electrodes, and requirements for the grounding electrode.

Antenna Grounding According to the National Electrical Code, ANSI/NFPA 70



Lightning

For added protection for this television receiver during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet and disconnect the antenna. This will prevent damage to the receiver due to lightning and power line surges.

Service

Damage Requiring Service

Unplug the set from the wall outlet and refer servicing to qualified service personnel under the following conditions:

- ❑ When the power cord or plug is damaged or frayed.



- ❑ If liquid has been spilled into the set or objects have fallen into the product.



- ❑ If the set has been exposed to rain or water.

- ❑ If the set has been subject to excessive shock by being dropped, or the cabinet has been damaged.



- ❑ If the set does not operate normally when following the operating instructions. Adjust only those controls that are specified in the operating instructions. Improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the set to normal operation.



- ❑ When the set exhibits a distinct change in performance, it indicates a need for service.

Servicing

Do not attempt to service the set yourself since opening the cabinet may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.



Replacement Parts

When replacement parts are required, be sure the service technician certifies in writing that he has used replacement parts specified by the manufacturer that have the same characteristics as the original parts.

Unauthorized substitutions may result in fire, electric shock or other hazards.



Safety Check

Upon completion of any service or repairs to the set, ask the service technician to perform routine safety checks (as specified by the manufacturer) to determine that the set is in safe operating condition, and to so certify. When the set reaches the end of its useful life, improper disposal could result in a picture tube implosion. Ask a qualified service technician to dispose of the set.



Contents

Introducing the FD Trinitron Wega

Overview	9
Presenting the FD Trinitron Wega	9
Package Contents	9
Features	9

Setting Up the TV

Overview	11
About the AC Power Cord	11
TV Controls and Connectors	12
Front Panel	12
Rear Panel	14
Basic Connections: Connecting a Cable or Antenna	16
Cable or Antenna Only	17
Cable and Antenna Only	18
Cable Box and Cable Only	20
Cable Box Only	22
Connecting Optional Equipment	23
About Using S VIDEO	23
VCR and Cable	24
VCR and Cable Box	26
Two VCRs for Tape Editing	28
Satellite Receiver	30
Satellite Receiver and VCR	32
DVD Player with Component Video Connectors	34
DVD Player with S VIDEO and Audio Connectors	36
DVI-Equipped Device	37
Camcorder	38
Audio Receiver	39
Using the CONTROL S Feature	40
Setting Up the Channel List	41
Using Auto Program	41

Using the Remote Control

Overview	43
Inserting Batteries	43
Button Descriptions	44
Outside Panel	44
Inside Panel	46
Programming the Remote Control	47

Using the Features

Overview	49
Watching TV	50
Using the Scrolling Index	51
Factors Affecting Scrolling Index	51
Using Wide Mode	52
Using Twin View	53
Displaying Twin Pictures	53
Factors Affecting Twin View	53
Activating the Picture	54
Changing the Picture Size	55
Using Favorite Channels	56
Creating a List of Favorite Channels	56
Displaying a List of Favorite Channels	56
Using the Freeze Function	57
Using Other Equipment with Your TV Remote Control	58
All Equipment	58
Operating a VCR	58
Operating a Satellite Receiver	58
Operating a Cable Box	59
Operating a DVD Player	59
Operating an MDP (Laserdisc Player)	59

Using the Memory Stick Viewer

About Memory Stick	61
Features	61
Memory Stick Compatibility	62
File Compatibility	62
Trademark Information	62
Inserting and Removing a Memory Stick	63
Inserting a Memory Stick	63
Inserting the Memory Stick Duo	64
Removing a Memory Stick	65
Using the Memory Stick Index	66
Using the Memory Stick Index	67
Viewing Photos	68
Photo Controls	68
Photo Menu Bar Options	69
Using Zoom and Pan	70
Using Rotate	70
Playing Movies	71
Movie Controls	71
Movie Menu Bar Options	72
Memory Stick Index Menu Bar Options	73
Slide Show Menu Options	73
Folder Menu Options	74
Memory Stick Menu	74
Notes on Using Memory Stick Media	75
About DCF File Names	75
Memory Stick Precautions	76

Using the Menus

Overview	77
Navigating Through Menus	77
Using the Video Menu	78
Using the Audio Menu	80
Using the Screen Menu	82
Using the Channel Menu	84
Using the Parent Menu	86
Using the Setup Menu	89

Other Information

Overview	93
Glossary	94
Contacting Sony	95
Troubleshooting	95
Twin View	95
Remote Control	96
Channels	96
Memory Stick	97
Video	99
Audio	99
General	100
Specifications	101
Optional Accessories	101
Index	103

Introducing the *FD Trinitron Wega*

Overview

This chapter describes the contents of the package in which the TV is shipped and provides an overview of the features of your Wega TV.

Presenting the *FD Trinitron Wega*

The FD Trinitron Wega (pronounced VAY-GAH) is characterized by outstanding contrast, uncompromising accuracy, and corner-to-corner detail.

You will recognize the superiority of Wega technology almost immediately. The first thing you will probably notice is minimal glare from the flat picture tube. This flat-screen technology improves picture detail without distortion, unlike conventional curved screens. The FD Trinitron delivers outstanding image detail not only at the screen center, but also at the corners — so you can enjoy a bright, clear picture from any location in a room.

Package Contents

Along with your new Trinitron TV, the packing box contains a remote control and two AA (R6) batteries. These items are all you need to set up and use the TV.

Features

Some of the features that you will enjoy with your new TV include:

- ❑ **Wide Screen Mode:** Watch conventional 4:3 aspect ratio broadcasts in wide screen (16:9) mode.
- ❑ **Super Fine Pitch CRT:** Created especially for displaying high resolution pictures, the new Super Fine Pitch CRT — along with a new electron gun and high intensity luminescent phosphor — improves image resolution, providing the highest picture quality reproduction from corner to corner.
- ❑ **DRC® (Digital Reality Creation) Multifunction V1:** Unlike conventional line doublers, the DRC Multifunction feature replaces the signal's NTSC waveform with the near-HD equivalent, while doubling the number of vertical and horizontal lines. This results in four times the density for quality sources, such as DVD, satellite, and digital camcorders. The Video Menu allows you to select interlaced, progressive, or CineMotion™

output. The DRC Palette option lets you customize the level of detail (Reality) and smoothness (Clarity) to create up to three custom palettes.

- ❑ **Scrolling Index:** Lets you select programs from a series of preview windows that scroll along the right side of the screen.
- ❑ **Twin View™:** Using the Multi-Image Driver (MIDX), Twin View allows you to watch two programs side by side, with the ability to zoom in one picture. You can watch pictures from two different sources (1080i, 720p, 480p, and 480i) simultaneously. (Only the left Twin View window can display 1080i, 720p, and 480p sources.)
- ❑ **Favorite Channels:** Allows you to preview and select from eight of your favorite channels.
- ❑ **ClearEdge VM™ Velocity Modulation:** Sharpens picture definition by enhancing vertical lines.
- ❑ **Steady Sound®:** Equalizes volume levels so there is consistent output between programs and commercials.
- ❑ **Memory Stick® Viewer:** Lets you watch digital photo (JPEG) and movie (MPEG1) files that are stored on Memory Stick media.
- ❑ **Component Video Inputs:** Offers the best video quality for DVD (480p, 480i), and digital set-top box (HD1080i, 720p) connections.
- ❑ **HD Detailer™:** Wideband video amplifier has a high bandwidth frequency rating, which allows it to send more video information to the screen, resulting in finer picture quality, especially for HD sources.
- ❑ **CineMotion™:** Reverse 3-2 pulldown processing provides optimal picture quality for film-based sources (media originally shot in 24 frames-per-second format).
- ❑ **Parental Control:** V-Chip technology allows parents to block unsuitable programming from younger viewers.
- ❑ **Digital Visual Interface (DVI):** Can accommodate a copy-protected digital connection (HDCP*) to other devices (such as digital set-top boxes) that have compatible interfaces. The DVI-HDTV input terminal is compliant with the EIA-861 standard and is not intended for use with personal computers.



16:9 is also referred to as widescreen format.

*High-bandwidth Digital Content Protection

Setting Up the TV


Overview

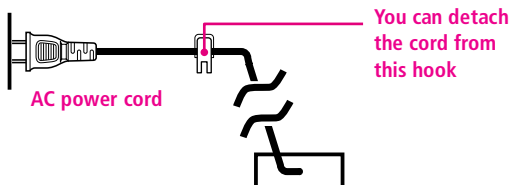
This chapter includes illustrated instructions for setting up your TV.

Topic	Page(s)
TV Controls and Connectors	12-15
Basic Connections: Connecting a Cable or Antenna	16-22
Connecting Optional Equipment	
VCR and Cable	24
VCR and Cable Box	26
Two VCRs for Tape Editing	28
Satellite Receiver	30
Satellite Receiver and VCR	32
DVD Player with Component Video Connectors	34
DVD Player with S VIDEO and Audio Connectors	36
DVI-Equipped Device	37
Camcorder	38
Audio Receiver	39
Using the CONTROL S Feature	40
Setting Up the Channel List	41

About the AC Power Cord

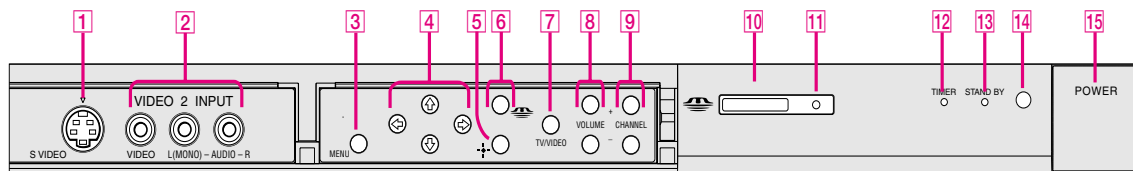
The AC power cord is attached to the rear of the TV with a hook. Use caution when removing the AC plug from its holder. Gently slide the plug upward to remove it from the hook. Once removed, the AC power plug should automatically disengage from its stored location.









 **Do not plug in the AC power cord until you have made all other connections.**



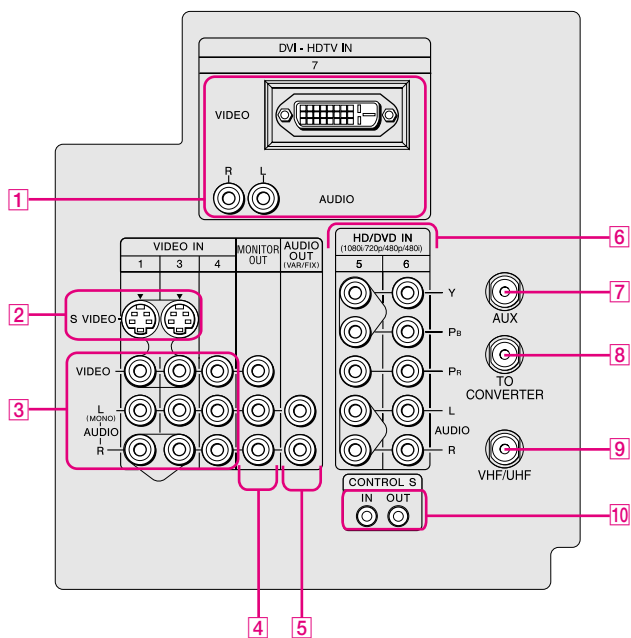
TV Controls and Connectors

Front Panel



Item	Description
1 S VIDEO VIDEO 2 INPUT	Connects to the S VIDEO OUT jack on your camcorder or other video equipment that has S VIDEO. Provides better picture quality than composite video (2).
2 VIDEO/L(MONO)-AUDIO-R VIDEO 2 INPUT	Connects to the composite A/V output jacks on your camcorder or other video equipment.
3 MENU	Press to display the Menu. Press again to exit from the Menu. For details, see "Using the Menus" on page 77.
4 	Press     to move the TV's on-screen cursor.
5 	Press to select an item in the TV's menu.
6 	Press to display the Memory Stick Menu. For details, see "Using the Memory Stick Viewer" on page 61.
7 TV/VIDEO	Press repeatedly to cycle through the video equipment connected to the TV's video inputs.
8 -VOLUME +	Press to adjust the volume.
9 -CHANNEL+	Press to scan through channels. To scan quickly through channels, press and hold down either CHANNEL button.
10 	Memory Stick insertion slot. For details, see "Inserting and Removing a Memory Stick" on page 63.
11 Memory Stick LED	When lit, indicates that the Memory Stick is being read. (Do not remove the Memory Stick when the indicator is lit.)
12 TIMER LED	When lit, indicates one of the timers is set. When the timer is set, this LED will remain lit even if the TV is turned off. For details, see page 91.
13 STAND BY LED	Blinks when the TV is turned on, then shuts off when the picture is displayed. If the LED blinks continuously, this may indicate the TV needs service (see "Contacting Sony" on page 95).
14 Infrared Receiver (IR)	Receives IR signals from the TV's remote control.
15 POWER	Press to turn on and off the TV.

Rear Panel



Jack	Description
[1] DVI-HDTV VIDEO AUDIO R/L (VIDEO 7 IN)	Can accommodate a copy-protected digital connection (HDCP*) to other devices (such as digital set-top boxes) that have compatible interfaces. The DVI-HDTV input terminal is compliant with the EIA-861 standard and is not intended for use with personal computers. See the instruction manual that came with your equipment for details about connecting and using it with the TV.
[2] S VIDEO IN 1/3	Connects to the S VIDEO OUT jack of your VCR or other video equipment that has S VIDEO. S VIDEO provides better picture quality than either composite video ([3]) or VHF/UHF ([9]) connections.
[3] VIDEO IN 1/3/4 VIDEO/L(MONO) -AUDIO-R	Connect to the composite A/V output jacks on your VCR or other video component. A fourth component A/V input jack (VIDEO 2) is located on the front panel of the TV. This video connection provides better picture quality than the VHF/UHF ([9]) connection.
[4] MONITOR OUT	Lets you record the program you are watching to a VCR. When two VCRs are connected, you can use the TV as a monitor for tape-to-tape editing (not available with 480p, 720p, or 1080i when the input is set to VIDEO 5 or 6).
[5] AUDIO OUT (VAR/FIX) L (MONO)/R	Connects to the left and right audio input jacks of your audio or video equipment. You can use these outputs to listen to your TV's audio through your stereo system.
[6] HD/DVD IN 5/6 (1080i/720p/480p/480i)	Connect to your DVD player's or digital set-top box's component video (Y, Pb, Pr) and audio (L/R) jacks. Component video provides better picture quality than [2] , [3] , or [9] .
[7] AUX	Auxiliary RF input that connects to your antenna, CATV cable, or cable box output jack. This is convenient if you are using two VHF/UHF sources (antenna, CATV cable, or cable box). For details, see pages 18 to 21.
[8] TO CONVERTER	Connects to your cable box input jack. This VHF/UHF output jack lets you set up your TV to switch between scrambled channels (coming through a cable box) and unscrambled cable channels. Use this jack instead of a splitter to get better picture quality when you need to switch between scrambled and unscrambled cable channels. For details, see pages 20 to 21.
[9] VHF/UHF	Primary RF input that connects to your VHF/UHF antenna or cable.
[10] CONTROL S IN/OUT	Allows the TV to receive (IN) and send (OUT) remote control signals to other Sony infrared-controlled audio or video equipment that has the CONTROL S function.

* High-bandwidth Digital Content Protection

Basic Connections: Connecting a Cable or Antenna

The way in which you will connect your TV varies, depending on how your home receives a signal (cable, cable box, antenna) and whether or not you plan to connect a VCR.

If You Are Connecting	See Page
Cable or Antenna Only	17
<input type="checkbox"/> No cable box or VCR	
Cable and Antenna Only	18
<input type="checkbox"/> No cable box or VCR	
Cable Box and Cable Only	20
<input type="checkbox"/> Cable box unscrambles only some channels (usually premium channels)	
<input type="checkbox"/> No VCR	
Cable Box Only	22
<input type="checkbox"/> Cable box unscrambles all channels	
<input type="checkbox"/> No VCR	

If you are connecting a VCR

- ☐ See the connections described on pages 24 and 26.


**Cable or Antenna
Only**

For best results, use one of the following connections if you are connecting a cable or an antenna and you:

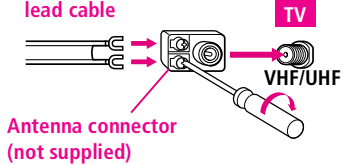
- ❑ Do not need a cable box to unscramble channels. (If you have a cable box, see pages 20-22.)
- ❑ Do not intend to connect a VCR. (If you have a VCR, see pages 24 and 26.)

The connection you choose depends on the cable type you have in your home, as described below.

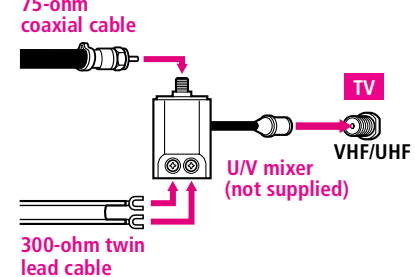
75-ohm coaxial cable (usually found in newer homes)

Cable Type	Connect As Shown
VHF Only or combined VHF/UHF or Cable	

300-ohm twin lead cable (usually found in older homes)

Cable Type	Connect As Shown
VHF Only or UHF Only or combined VHF/UHF	

75-ohm coaxial and 300-ohm twin lead cable (found in some homes)

Cable Type	Connect As Shown
VHF and UHF	

**Cable and Antenna
Only**

For best results, use this connection if you:

- ❑ Have a cable and an antenna.
(This is convenient if you are using a separate rooftop antenna to receive additional channels that are not provided by your cable company.)
- ❑ Do not have a cable box or VCR. (If you have a cable box, see pages 20 to 22. If you have a VCR, see pages 24 and 26.)


Cable Type	Connect As Shown
Cable TV (CATV) and Antenna	<div><div>CATV cable</div><div>(No connection to TO CONVERTER)</div><div>Antenna cable</div><div><div>TV</div><div>AUX</div><div>TO CONVERTER</div><div>VHF/UHF</div></div></div>

About Using This Connection with Dual Picture (Twin View, etc.) Features

With this connection, you cannot view CATV channels in the right dual picture window.

Notes on Using This Connection

To Do This ...	Do This ...
Switch the TV's input between the cable and antenna	Press ANT to switch back and forth between the TV's VHF/UHF and AUX inputs.
Receive channels using an antenna, instead of the cable	<div><div>1</div><div>Press ANT to switch to the AUX input.</div></div> <div><div>2</div><div>Set the Cable option to Off. For details, see "Selecting Channel Options" on page 84.</div></div> <div><div>3</div><div>Run the Auto Setup program, as described in "Using Auto Program" on page 41.</div></div>

 **DIGITAL CABLE BOX USERS:** Do not use this connection. The TO CONVERTER jack is not compatible with digital cable boxes.

For best results, use this connection if:

- ❑ Your cable company scrambles some channels, such as premium channels (which requires you to use a cable box), but does not scramble all channels.
- ❑ You do not have a VCR. (If you have a VCR, see pages 24 and 26.)

With this connection you can:

- ❑ Use the TV remote control to change channels coming through the cable box to the TV's AUX input jack. (You must first program the remote control for your specific cable box; see "Programming the Remote Control" on page 47.)
- ❑ Use the TV remote control to change channels coming directly into the TV's VHF/UHF input. (The TV's tuner provides a better signal than the cable box.)

About Using This Connection with Dual Picture (Twin View, etc.) Features

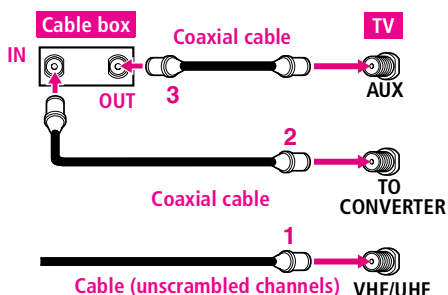
With this connection, you can use all the dual picture features for unscrambled channels coming directly into the TV's VHF/UHF input jack.

However, you can use only some of the dual picture features for channels coming through the cable box to the TV's AUX input jack. For example, when you switch the TV's input to AUX — to select the cable box input — the picture displays only in the left window. For example, if you turn on Twin View, you can watch cable channels coming into the VHF/UHF jack in the right window, but you cannot swap the pictures between the left and right windows.

To connect the cable box and cable

- 1 Connect the cable from your cable company to the TV's VHF/UHF jack.
- 2 Use a coaxial cable to connect the TV's TO CONVERTER jack to the cable box's input jack. (The TV's internal converter lets you switch between unscrambled signals coming straight into the TV and scrambled signals coming in through the cable box, eliminating the need for an external splitter.)
- 3 Use a coaxial cable to connect the cable box's output jack to the TV's AUX jack.
- 4 Run the Auto Setup program, as described in "Setting Up the Channel List" on page 41.

If you have a digital cable box, you cannot use this connection because the TO CONVERTER jack is not compatible with digital cable boxes.



Notes on Using This Connection

To Do This ...	Do This ...
Use the cable box	Tune the TV to the channel the cable box is set to (usually channel 3 or 4) and then use the cable box to switch channels.
Set up the TV remote control to operate the cable box	Program the remote control. See "Programming the Remote Control" on pages 47-48.
Activate the remote control to operate the cable box	Press SAT/CABLE FUNCTION .
Prevent the accidental switching of TV channels	When using the cable box, you need the TV to stay on the channel the cable box is set to (usually channel 3 or 4). You can use the TV's Channel Fix feature to lock in a specific channel. For details, see "Using the Channel Menu" on page 84.
Switch the TV's input between the cable box and cable	Press ANT to switch back and forth between the TV's VHF/UHF (unscrambled channels) and AUX (scrambled) inputs.

Cable Box Only

For best results, use this connection if:

- ❑ Your cable company scrambles all channels, which requires you to use a cable box.
- ❑ You do not have a VCR. (If you have a VCR, see pages 24 and 26.)

With this connection you can:

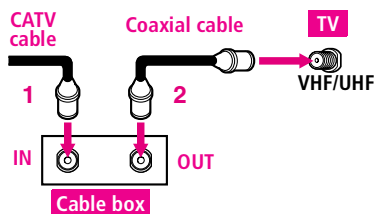
- ❑ Use the TV remote control to change channels coming through the cable box to the TV's VHF/UHF jack. (You must first program the remote control for your specific cable box.)

About Using This Connection with Dual Picture (Twin View, etc.) Features

With this connection, all channels come into the TV through your cable box and only one unscrambled signal is sent to the TV, so you cannot use the dual picture features. If some of your channels are scrambled, but others are not, consider using the "Cable Box and Cable" connection on page 20 instead.

To connect the cable box

- 1 Connect the CATV cable to the cable box's input jack.
- 2 Use a coaxial cable to connect the cable box's output jack to the TV's VHF/UHF jack.



Notes on Using This Connection

To Do This ...	Do This ...
Use the cable box	Tune the TV to the channel the cable box is set to (usually channel 3 or 4) and then use the cable box to switch channels.
Set up the TV remote control to operate the cable box	Program the remote control. See "Programming the Remote Control" on pages 47-48.
Activate the remote control to operate the cable box	Press SAT/CABLE FUNCTION .
Prevent the accidental switching of TV channels	When using the cable box, you need the TV to stay on the channel the cable box is set to (usually channel 3 or 4). You can use the TV's Channel Fix feature to lock in a specific channel. For details, see "Using the Channel Menu" on page 84.

Connecting Optional Equipment

Use the directions in this section to connect the following optional equipment:

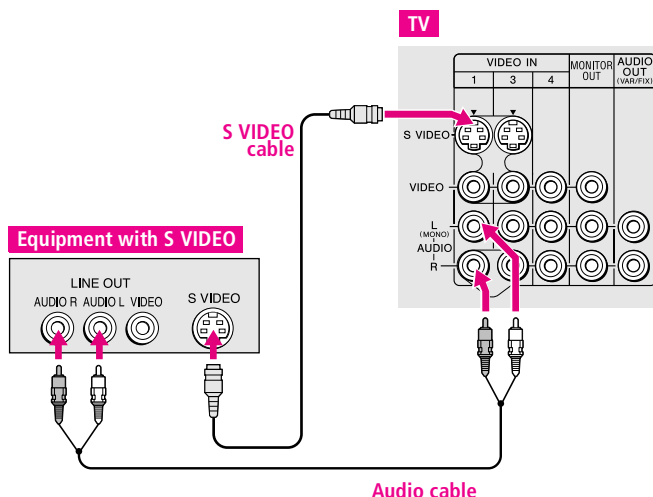
<i>If You Are Connecting</i>	<i>See Page</i>
VCR and Cable	24
VCR and Cable Box	26
Two VCRs for Tape Editing	28
Satellite Receiver	30
Satellite Receiver and VCR	32
DVD Player with Component Video Connectors	34
DVD Player with S VIDEO and Audio Connectors	36
DVI-Equipped Device	37
Camcorder	38
Audio Receiver	39

About Using S VIDEO



If the optional equipment you are connecting has an S VIDEO jack (shown at left), you can use an S VIDEO cable for improved picture quality (compared to an A/V cable). Because S VIDEO carries only the video signal, you also need to connect audio cables for sound, as shown below.

Example of an S VIDEO Connection



VCR and Cable

For best results, use this connection if:

- ❑ Your cable company does not require you to use a cable box.

About Using This Connection with Dual Picture (Twin View, etc.) Features

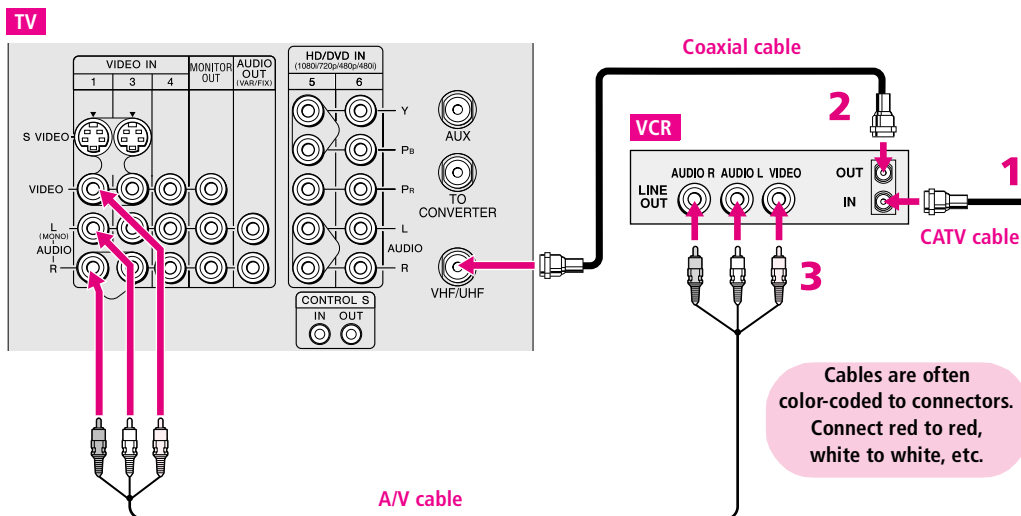
With this connection, you can use all the dual picture features.

To connect the VCR and cable

- 1 Connect the CATV cable to the VCR's VHF/UHF input jack.
- 2 Use a coaxial cable to connect the VCR's VHF/UHF output jack to the TV's VHF/UHF jack.
- 3 Use an A/V cable to connect the VCR's A/V output jacks to the TV's A/V input jacks.
- 4 Run the Auto Setup program, as described in "Setting Up the Channel List" on page 41.



Using
S VIDEO jacks?
See page 23.



Notes on Using This Connection

To Do This ...	Do This ...
Watch the VCR	Press TV/VIDEO repeatedly to select the VCR input (VIDEO 1 in the illustration).
Watch cable channels	Press TV/VIDEO repeatedly to select the cable input (VHF/UHF in the illustration).
Set up the TV remote control to operate the VCR	If you have a non-Sony VCR, you must program the remote control. See “Programming the Remote Control” on pages 47-48.
Activate the TV remote control to operate the VCR	Open the outside cover, as shown on page 46. Then set the A/V slide switch to the position you programmed for the VCR.
Control VCR functions with the TV remote control	See “Operating a VCR” on page 58.
Label video inputs to easily identify equipment connected to the TV	See the instructions for setting up Video Labels on page 90.

VCR and Cable Box

For best results, use this connection if:

- ❑ Your cable company scrambles some channels, such as premium channels (which requires you to use a cable box), but does not scramble all channels.

About Using This Connection with Dual Picture (Twin View, etc.) Features

With this connection, you can use all the dual picture features.

With this connection you can:

- ❑ Use the TV remote control to change channels coming through the cable box. (You must first program the remote control for your specific cable box; see “Programming the Remote Control” on page 47.)
- ❑ Use the TV remote control to change channels coming directly into the TV’s VHF/UHF jack. (The TV’s tuner provides a better signal than the cable box.)
- ❑ Record channels coming through the cable box and channels coming directly into the TV.

To connect a VCR and cable box, you need:

- ❑ A splitter, which is a small, inexpensive device that you can purchase at your local electronics store.



DIGITAL CABLE BOX USERS: If you are connecting a digital cable box, you will need a special bi-directional splitter that is designed to work with your digital cable box. Contact your cable provider for details.

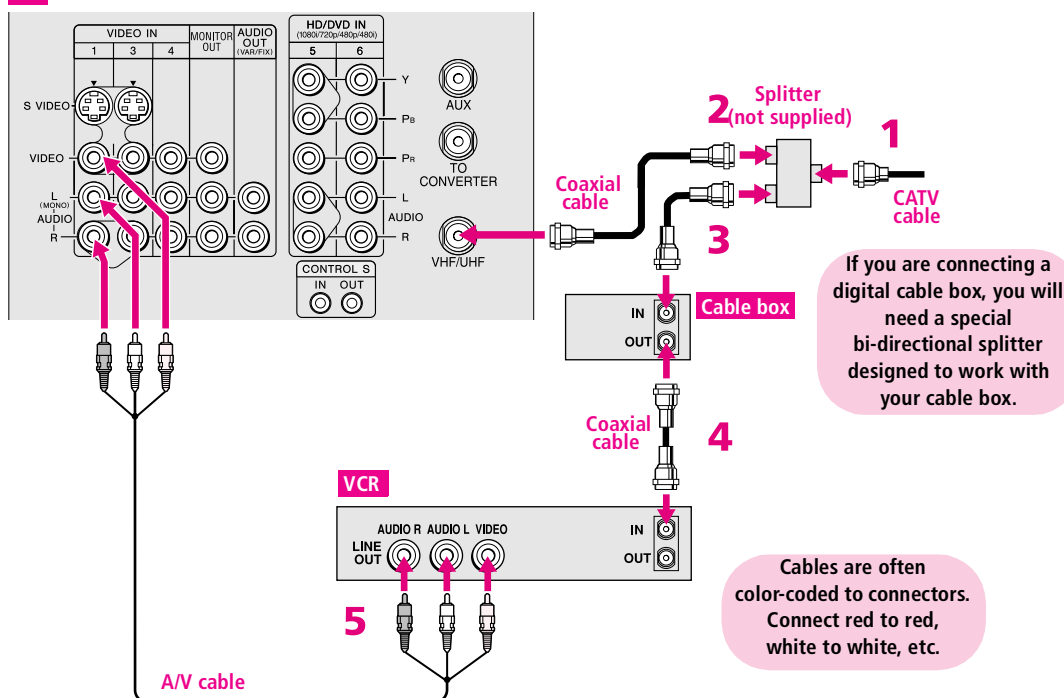
- ❑ Three coaxial cables.
- ❑ One A/V cable or one S VIDEO cable with audio cables.

To connect the VCR and cable box

- 1 Connect the CATV cable to the single (input) jack of the splitter.
- 2 Use a coaxial cable to connect one of the splitter’s two output jacks to the TV’s VHF/UHF jack.
- 3 Use a coaxial cable to connect the splitter’s other output jack to the cable box’s input jack.
- 4 Use a coaxial cable to connect the cable box’s output jack to the VCR’s RF input jack.
- 5 Use an A/V cable to connect the VCR’s A/V output jacks to the TV’s A/V input jacks.
- 6 Run the Auto Setup program, as described in “Setting Up the Channel List” on page 41.



Using
S VIDEO jacks?
See page 23.



Notes on Using This Connection

To Do This ...	Do This ...
Watch cable (unscrambled) channels	Press TV/VIDEO repeatedly to select the cable input (UHF/VHF in the illustration).
Watch cable box (scrambled) channels	Turn on the VCR and tune it to the channel the cable box is set to (usually channel 3 or 4). Press TV/VIDEO repeatedly to select the VCR input (VIDEO 1 in the illustration). Use the cable box to change channels.
Watch the VCR	Press TV/VIDEO repeatedly to select the VCR input (VIDEO 1 in the illustration).
Set up the TV remote control to operate the cable box or VCR	If you have a non-Sony VCR, you must program the remote control. See "Programming the Remote Control" on pages 47-48.
Activate the remote control to operate the cable box or VCR	For the cable box, press SAT/CABLE FUNCTION . For the VCR, open the outside cover, as shown on page 46. Then set the A/V slide switch to the position you programmed for the VCR.
Control specific cable box and VCR functions with the TV remote control	See "Operating a Cable Box" on page 59 and "Operating a VCR" on page 58.
Label video inputs to easily identify equipment connected to the TV	See the instructions for setting up Video Labels on page 90.

Two VCRs for Tape Editing

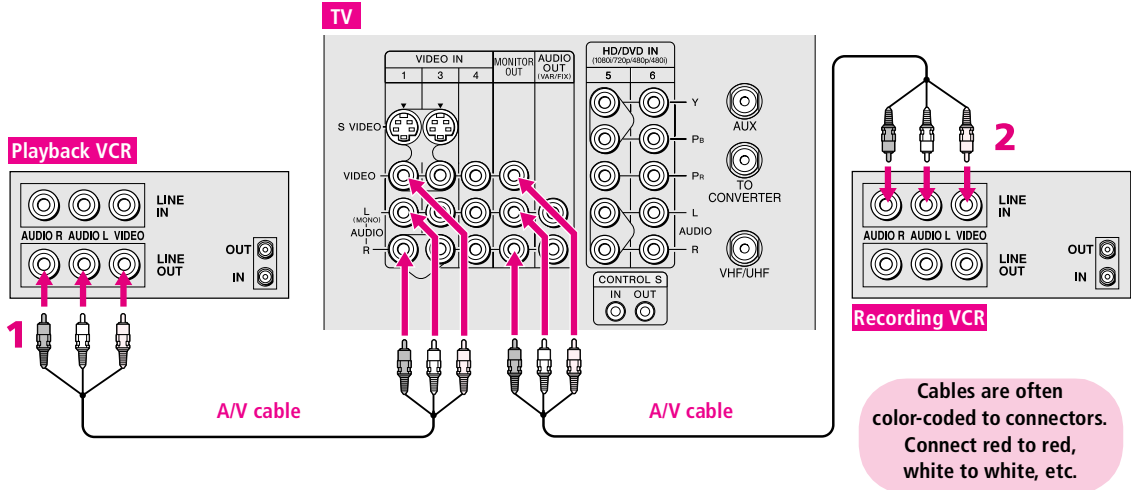


Using
S VIDEO jacks?
See page 23.

Connecting two VCRs lets you record from one VCR to the other. By connecting them as shown below, you can view (monitor) what is being recorded.

To connect two VCRs for tape editing

- 1 Use an A/V cable to connect the playback VCR's A/V output jacks to the TV's A/V input jacks.
- 2 Use an A/V cable to connect the recording VCR's A/V input jacks to the TV's MONITOR OUT jacks.



Notes on Using This Connection

To Do This ...	Do This ...
View (monitor) what is being recorded	Press TV/VIDEO repeatedly to select the VCR input (VIDEO 1 in the illustration above).
Set up the TV remote control to operate the VCR(s)	If you have a non-Sony VCR, you must program the remote control. See “Programming the Remote Control” on pages 47-48.
Activate the TV remote control to operate the VCR(s)	Open the outside cover, as shown on page 46. Then set the A/V slide switch to the position you programmed for the VCR.
Control VCR functions with the TV remote control	See “Operating a VCR” on page 58.
Label video inputs to easily identify equipment connected to the TV	See the instructions for setting up Video Labels on page 90.

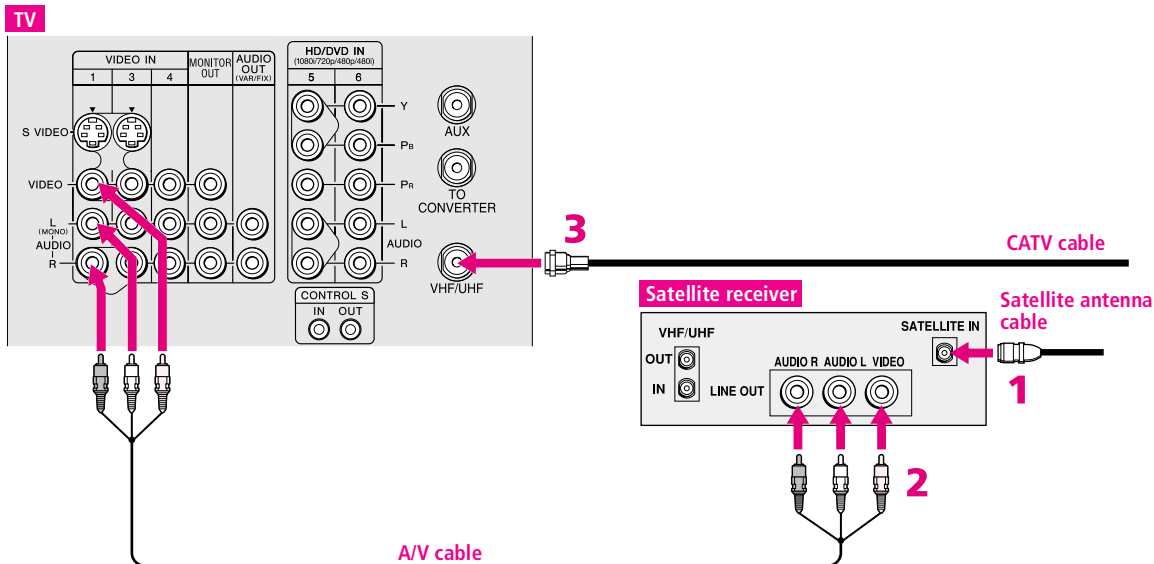
Satellite Receiver



Using
S VIDEO jacks?
See page 23.

To connect a satellite receiver

- 1 Connect the satellite antenna cable to the satellite receiver's satellite input jack.
- 2 Use an A/V cable to connect the satellite receiver's A/V output jacks to the TV's A/V input jacks.
- 3 Connect a CATV cable from your cable or antenna to the TV's VHF/UHF jack.
- 4 Run the Auto Setup program, as described in "Setting Up the Channel List" on page 41.



Cables are often
color-coded to connectors.
Connect red to red,
white to white, etc.

Notes on Using This Connection

<i>To Do This ...</i>	<i>Do This ...</i>
Watch the satellite receiver	Press TV/VIDEO repeatedly to select the satellite receiver input (VIDEO 1 in the illustration).
Set up the TV remote control to operate the satellite receiver	If you have a non-Sony satellite receiver, you must program the remote control. See “Programming the Remote Control” on pages 47-48.
Activate the TV remote control to operate the satellite receiver	Press SAT/CABLE FUNCTION .
Control satellite receiver functions with the TV remote control	See “Operating a Satellite Receiver” on page 58.
Label video inputs to easily identify equipment connected to the TV	See the instructions for setting up Video Labels on page 90.

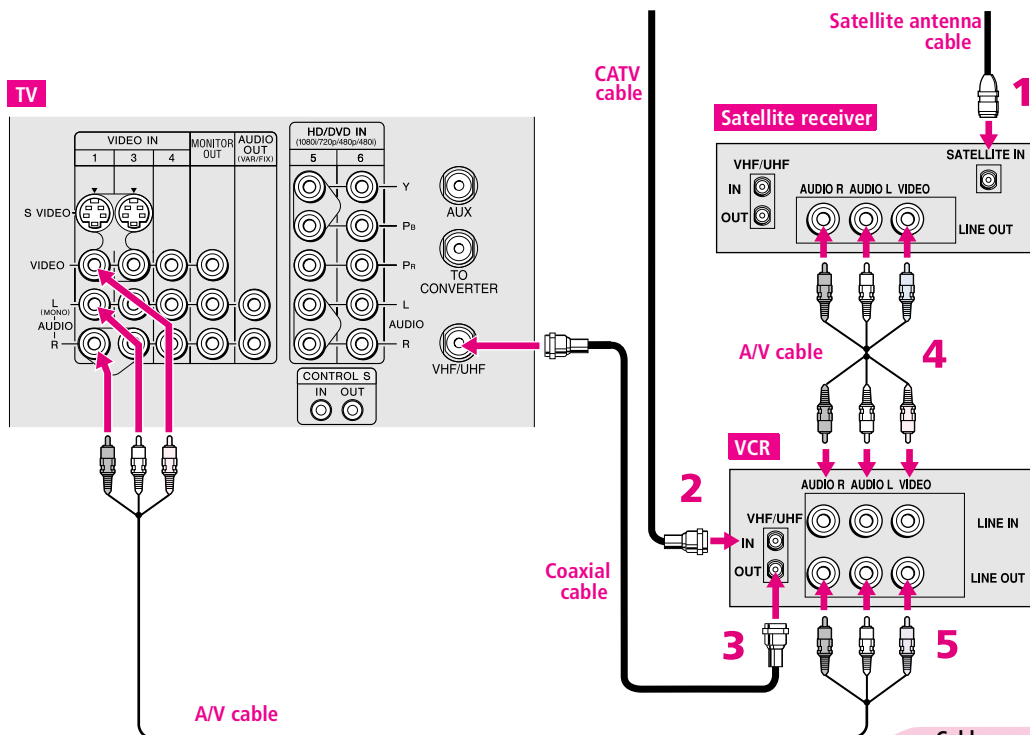
Satellite Receiver and VCR



Using
S VIDEO jacks?
See page 23.

To connect a satellite receiver and VCR

- 1 Connect the satellite antenna cable to the satellite receiver's satellite input jack.
- 2 Connect the CATV cable to the VCR's VHF/UHF input jack.
- 3 Use a coaxial cable to connect the VCR's VHF/UHF output jack to the TV's VHF/UHF jack.
- 4 Use an A/V cable to connect the satellite receiver's A/V output jacks to the VCR's A/V input jacks.
- 5 Use an A/V cable to connect the VCR's A/V output jacks to the TV's A/V input jacks.
- 6 Run the Auto Setup program, as described in "Setting Up the Channel List" on page 41.



Cables are often color-coded to connectors. Connect red to red, white to white, etc.

Notes on Using This Connection


To Do This ...	Do This ...
Watch the satellite receiver	Press TV/VIDEO repeatedly to select the VCR input (VIDEO 1 in the illustration). The VCR must be turned on and set to the satellite receiver's line input.
Watch the VCR	Press TV/VIDEO repeatedly to select the input to which the VCR is connected (VIDEO 1 in the illustration).
Set up the TV remote control to operate the satellite receiver or VCR	If you have a non-Sony VCR or satellite receiver, you must program the remote control. See "Programming the Remote Control" on pages 47-48.
Activate the TV remote control to operate the satellite receiver or VCR	For the satellite receiver, press SAT/CABLE FUNCTION . For the VCR, open the outside cover, as shown on page 46. Then set the A/V slide switch to the position you programmed for the VCR.
Control satellite receiver and VCR functions with the TV remote control	See "Operating a Satellite Receiver" on page 58 and "Operating a VCR" on page 58.
Label video inputs to easily identify equipment connected to the TV	See the instructions for setting up Video Labels on page 90.

DVD Player with Component Video Connectors

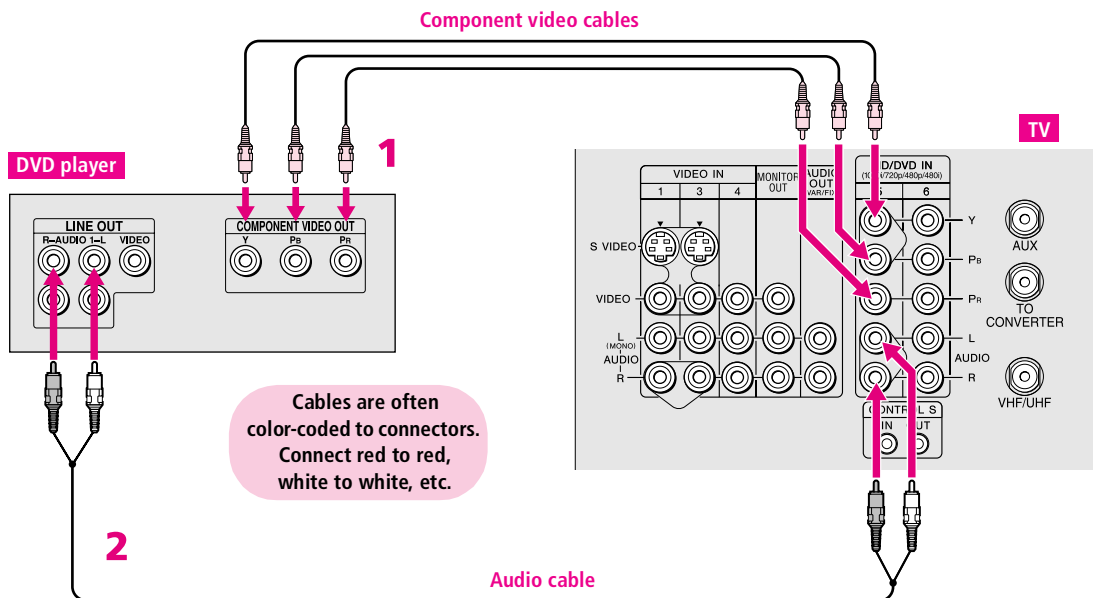
For best results, use this connection if your DVD player has component video (Y, P_B, P_R) jacks.

To connect a DVD player with component video connectors

- 1 Use three separate component video cables to connect the DVD player's Y, P_B and P_R jacks to the Y, P_B and P_R jacks (VIDEO 5) on the TV.


 The Y, P_B and P_R jacks on your DVD player are sometimes labeled Y, C_B and C_R, or Y, B-Y and R-Y. If so, connect the cables to like colors.

- 2 Use an audio cable to connect the DVD player's audio output jacks to the TV's VIDEO 5 audio input jacks.



Notes on Using This Connection

To Do This ...	Do This ...
Watch the DVD player	Press TV/VIDEO repeatedly to select the DVD input (VIDEO 5 in the illustration).
Set up the TV remote control to operate the DVD player	If you have a non-Sony DVD player, you must program the remote control. See “Programming the Remote Control” on pages 47-48.
Activate the TV remote control to operate the DVD player	Open the outside cover, as shown on page 46. Then set the A/V slide switch to the position you programmed for the DVD player.
Control DVD functions with the TV remote control	See “Operating a DVD Player” on page 59.
Label video inputs to easily identify equipment connected to the TV	See the instructions for setting up Video Labels on page 90.

 **You cannot record the signal from any equipment connected into the Y, PB, PR jacks.**

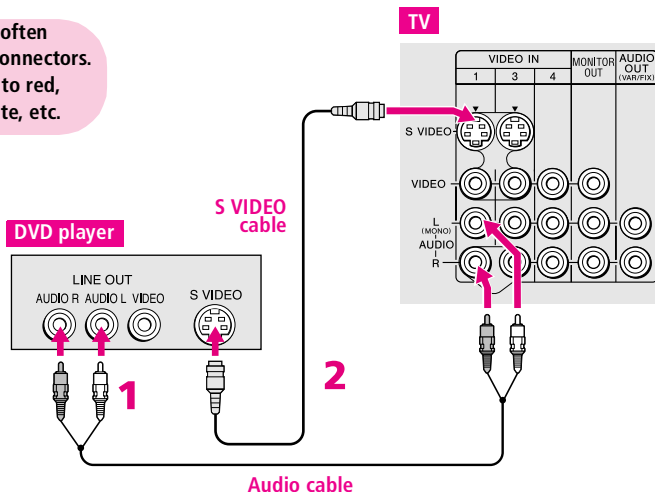
DVD Player with S VIDEO and Audio Connectors

Use this connection if your DVD player does not have component video (Y, Pb, Pr) jacks.

To connect a DVD player with A/V connectors

- 1 Use an audio cable to connect the DVD player's audio output jacks to the TV's audio input jacks.
- 2 Use an S VIDEO cable to connect the DVD player's S VIDEO jack to the TV's S VIDEO jack.

Cables are often color-coded to connectors. Connect red to red, white to white, etc.



Notes on Using This Connection

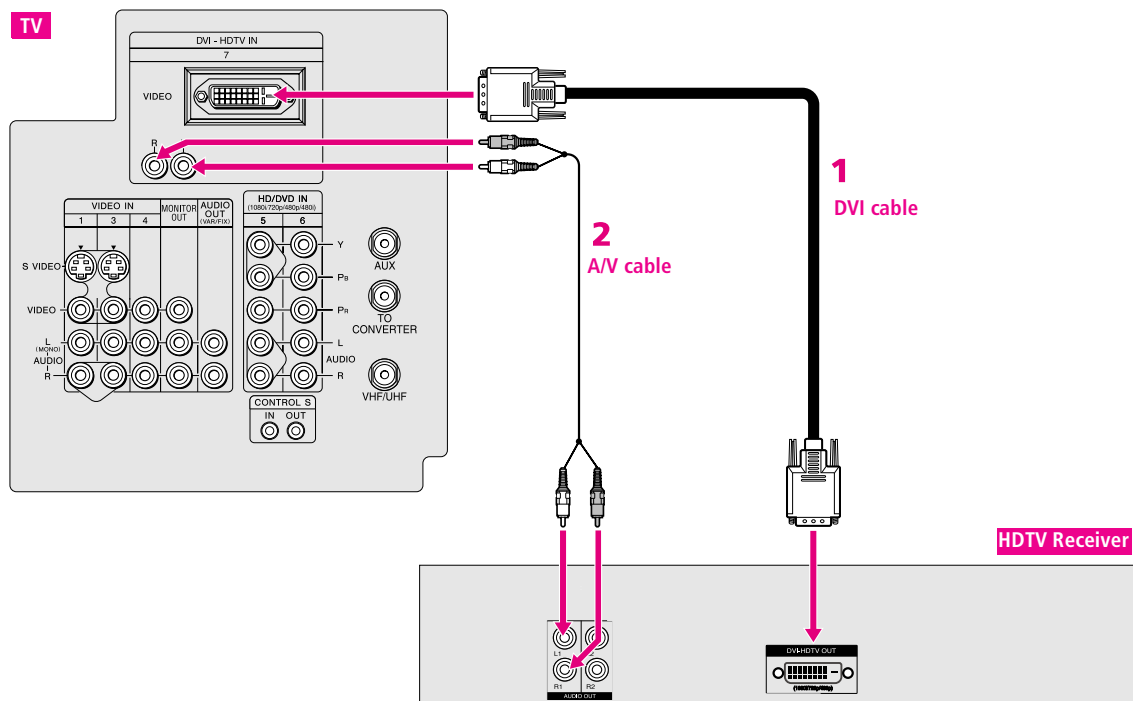
To Do This ...	Do This ...
Watch the DVD player	Press TV/VIDEO repeatedly to select the DVD input (VIDEO 1 in the illustration).
Set up the TV remote control to operate the DVD player	If you have a non-Sony DVD player, you must program the remote control. See "Programming the Remote Control" on pages 47-48.
Activate the TV remote control to operate the DVD player	Open the outside cover, as shown on page 46. Then set the A/V slide switch to the position you programmed for the DVD player.
Control DVD functions with the TV remote control	See "Operating a DVD Player" on page 59.
Label video inputs to easily identify equipment connected to the TV	See the instructions for setting up Video Labels on page 90.

DVI-Equipped Device

If you have a device, such as an HDTV receiver, that has a DVI-HDTV OUT jack, use the following connection.

To connect a device that has DVI-HDTV OUT:

- 1 Use the DVI cable that came with your device to connect the device's DVI-HDTV OUT jack to the TV's DVI-HDTV IN jack.
- 2 Use an audio cable to connect the device's audio output jacks to the TV's DVI-HDTV IN jack audio input jacks.



Camcorder

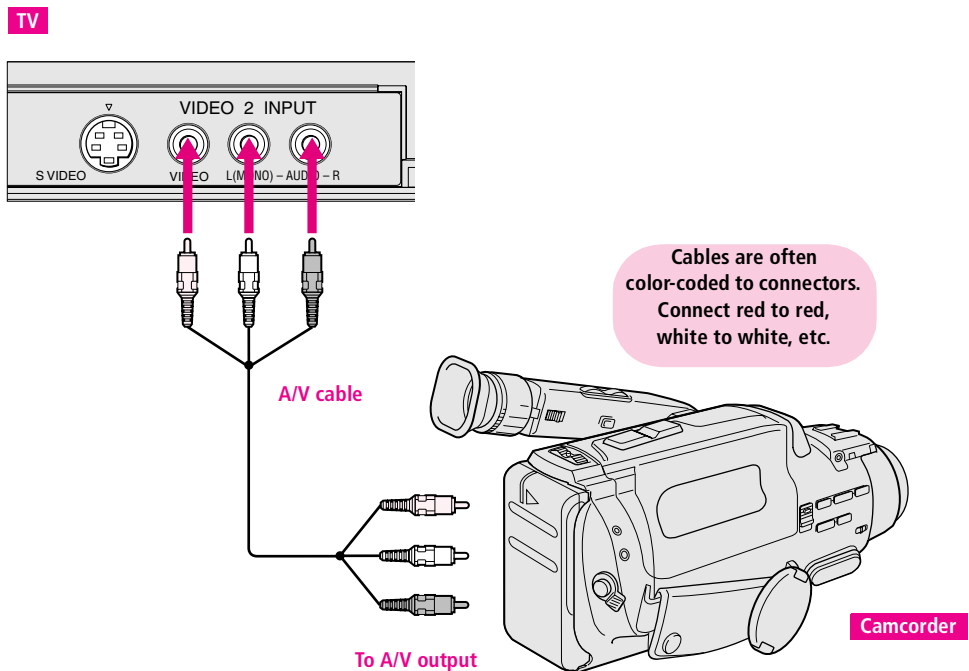


Using
S VIDEO jacks?
See page 23.

For easy connection of a camcorder, the TV has front A/V input jacks. If you prefer, however, you can connect the camcorder to the TV's rear A/V input jacks.

To connect a camcorder

- 1 Use A/V cables to connect the camcorder's A/V output jacks to the TV's A/V input jacks.



If you have a mono camcorder, connect its audio output jack to the TV's L MONO audio jack.

Notes on Using This Connection

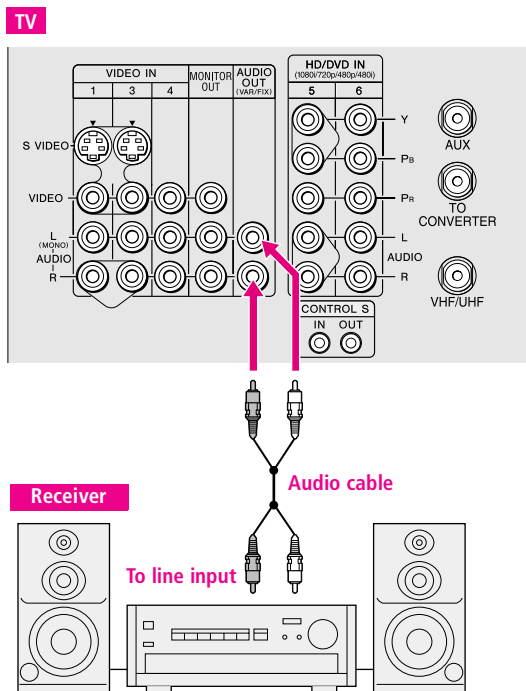
To Do This ...	Do This ...
Watch the camcorder	Press TV/VIDEO repeatedly to select the camcorder input (VIDEO 2 in the illustration).
Label video inputs to easily identify equipment connected to the TV	See the instructions for setting up Video Labels on page 90.

Audio Receiver

For improved sound quality, you may want to play the TV's audio through your stereo system.

To connect an audio system

- 1 Use an audio cable to connect the TV's audio output jacks to the audio receiver's line input jacks.



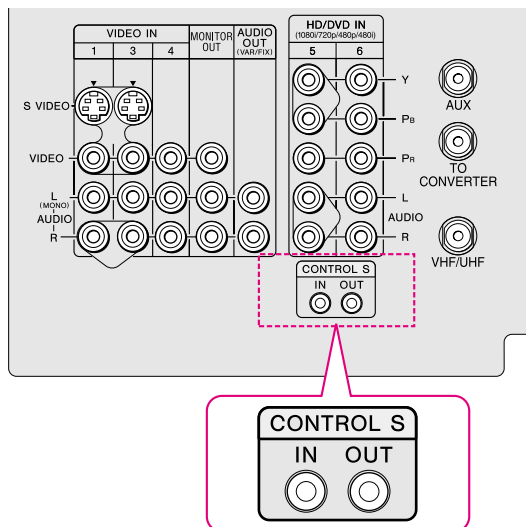
- 2 Using the TV's Audio Menu, set the **Speaker** option to **Off**. Then set the **Audio Out** option to **Fixed** or **Variable**, depending on how you want to control the volume. For details, see "Using the Audio Menu" on page 80.
- 3 Turn on the audio receiver, and then set the receiver's line input to the jack into which you connected the TV.

Using the **CONTROL S** Feature

CONTROL S allows you to control your system and other Sony equipment with one remote control. In addition to allowing you to control multiple devices with one remote control, the CONTROL S feature allows you to always point your remote control at your TV, instead of having to point it at the other equipment, which might be hidden or out of direct line of sight.

Use CONTROL S IN to send signals to the TV.

Use CONTROL S OUT to send signals to connected equipment.



Setting Up the Channel List

After you finish connecting your TV, you need to run Auto Setup to set up your channels. The Auto Program screens appear when you turn on your TV for the first time after hooking it up.

Using Auto Program



To exit the Tilt Correction and Vertical Correction screens, press the **MENU** button.



For more details on using Auto Program, see page 84. For more details on using Tilt Correction and Vertical Correction, see pages 89-90.

To run Auto Program the first time you turn on your TV

- 1 Press **POWER** to turn on the TV.
The Initial Setup screen appears.
- 2 Using the joystick on the remote control, move the highlight to the desired language, then press **+** to select that language.
- 3 The next screen instructs you to connect your cable/antenna. Check that you've connected your signal source as described on pages 16 to 22.
To start Auto Program, move the joystick to highlight **Yes** and then press **+**.
Auto Program automatically creates a list of receivable channels.
When Auto Program is finished, the Tilt Correction screen appears.
- 4 Move the joystick **← →** to correct any tilt of the picture. You can choose a correction between +7 and -7.
When finished, press **+**. The Vertical Correction screen appears.
- 5 Move the joystick **↑ ↓** to make a vertical correction to the picture. You can choose a correction between +5 and -5. When finished, press **+**.
The lowest numbered channel is displayed.

To reset the TV to factory settings

- 1 Press **POWER** to turn on the TV.
- 2 Hold down **RESET** on the remote control.
- 3 Press **TV POWER** on the TV. (The TV will turn itself off, then back on.)
- 4 Release **RESET**.

Using the Remote Control

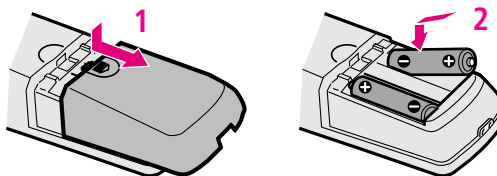
Overview


This chapter describes how to set up, program, and use the TV's remote control.

Topic	Page
Inserting Batteries	43
Button Descriptions	
Outside Panel	44
Inside Panel	46
Programming the Remote Control	47

Inserting Batteries

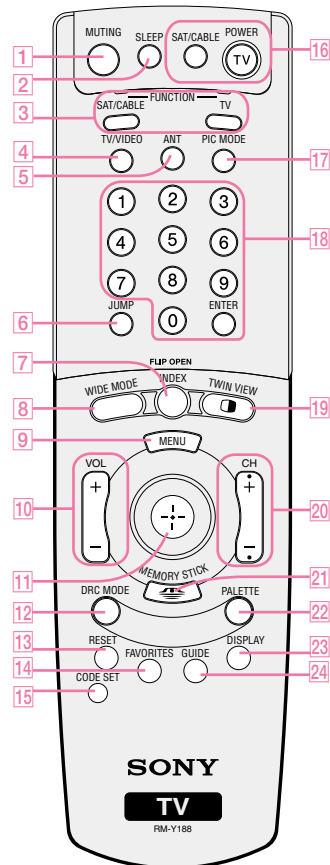
- 1 Remove the battery cover from the remote control.
- 2 Insert two size AA (R6) batteries (supplied) by matching the **+** and **-** terminals on the batteries to the diagram inside the battery compartment.
- 3 Replace the battery cover.






 Remove the batteries to avoid damage from possible battery leakage whenever you anticipate that the remote control will not be used for an extended period. Handle the remote control with care. Avoid dropping it, getting it wet, placing it in direct sunlight, near a heater, or where the humidity is high.

Button Descriptions

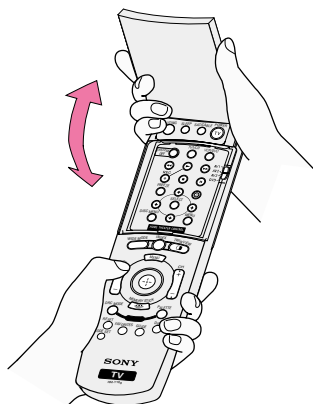
Outside Panel



Button	Description
1 MUTE	Press to mute the sound. Press again or press VOL+ to restore the sound.
2 SLEEP	Press repeatedly until the TV displays the time in minutes (15, 30, 45, 60, or 90) that you want the TV to remain on before shutting off automatically. To cancel press until Sleep Off appears. While the Sleep feature is set, press once to display the remaining time.
3 FUNCTION Buttons	The indicator lights up momentarily when pressed to show which equipment the remote control is operating: SAT/CABLE: Press to have the remote control operate the satellite receiver or cable box. TV: Press to have the remote control operate the TV.
4 TV/VIDEO	Press repeatedly to cycle through the video equipment connected to the TV's video inputs.
5 ANT	Press to switch between the sources connected to the TV's VHF/UHF and AUX inputs.
6 JUMP	Press to jump back and forth between two channels. The TV alternates between the current channel and the last channel that was selected.
7 INDEX	Press to display the Scrolling Index. For details, see page 51.
8 WIDE MODE	Press repeatedly to step through the Wide Mode settings: Wide Zoom , Normal , Full , Zoom . Also available in the Screen menu. For details, see page 82.
9 MENU	Press to display the Menu. Press again to exit from the Menu. For details, see "Using the Menus" on page 77.
10 VOL +/-	Press to adjust the volume.
11 	Move the joystick ↑ ↓ ← → to move the on-screen cursor. To select an item, press the center of the joystick (+).
12 DRC MODE	Press repeatedly to cycle through the available high-resolution picture modes: Interlaced , Progressive , CineMotion . Also available in the Video Menu. For details, see "Selecting Video Options" on pages 78-79.
13 RESET	Press to reset the settings to the factory defaults. See pages 78 and 80. Also used to clear Favorite Channels (see page 56).
14 FAVORITES	Press to display the Favorite Channels list. For details, see page 56.

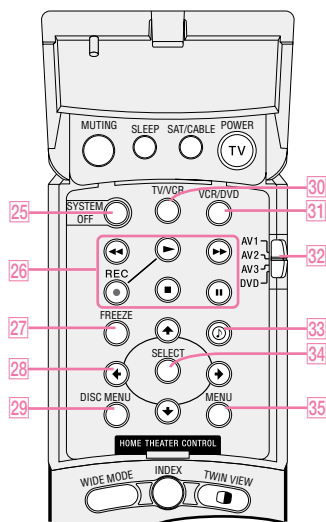
Button	Description
15 CODE SET	Press to program the remote control to operate non-Sony video equipment. For details, see “Programming the Remote Control” on page 47.
16 POWER Buttons	SAT/CABLE: Press to turn on and off the satellite receiver or cable box. TV: Press to turn on and off the TV.
17 PIC MODE	Press repeatedly to cycle through the available video picture modes: Vivid , Standard , Movie , Pro . Also available in the Video Menu. For details, see “Selecting Video Options” on pages 78-79.
18 0 - 9 ENTER	Press 0 - 9 to select a channel; the channel changes after 3 seconds. Press ENTER to change channels immediately.
19 TWIN VIEW 	Press to turn on and off Twin View. For details, see pages 53-55.
20 CH +/-	Press to scan through channels. To scan quickly through channels, press and hold down either CH button.
21 MEMORY STICK 	Press to display the Memory Stick Menu. For details, see “Using the Memory Stick Viewer” on page 61.
22 PALETTE	Press repeatedly to cycle through the three Custom DRC Palette options. Also available in the Video Menu. For details, see “Using the Video Menu” on page 78-79.
23 DISPLAY	Press once to display the current channel number, current time, and channel label (if set). Press again to turn Display off.
24 GUIDE	Press to display the program guide of your satellite program provider.

Inside Panel



To access the inside panel, open the outside cover as shown.

Opening the outside cover automatically switches the remote control to operate your VCR or DVD player, depending on the position of the A/V slide switch. For details, see page 47.




Button	Description
25 SYSTEM OFF	Press to turn off all Sony brand audio/video equipment at once. (May not function with older Sony equipment.)
26 Transport Buttons	◀◀ Rewind ▶ Play ● Record (press together with ▶) ■ Stop ▶▶ Fast forward Pause
27 FREEZE	Press to freeze the picture. Press again to restore the picture. For details, see page 57.
28 ⬆ ⬇ ⬆ ⬇	Press ⬆ ⬇ ⬆ ⬇ to move the VCR or DVD player's on-screen cursor.
29 DISC MENU	Press to display the DVD Menu.
30 TV/VCR	Press to change to the VHF/UHF output of the VCR.
31 VCR/DVD	Press to turn on and off the VCR or DVD player.
32 AV1/2/3/DVD Slide Switch	Use the A/V slide switch to control connected video equipment. You can program one video source for each switch position. For details, see "Programming the Remote Control" on page 47.
33 Ⓜ	Press repeatedly to step through the Audio Effect options. Also available in the Audio Menu. For details, see page 80.
34 SELECT	Press to select an item in the VCR or DVD player's menu.
35 MENU	Press to display the DVD player setup menu.

Programming the Remote Control

The remote control is preset to operate Sony brand video equipment.


Sony Equipment	Switch Position on Remote Control	Programmable Code Number
Beta, ED Beta VCRs	AV1	303
8 mm VCR	AV2	302
VHS VCR	AV3	301
DVD player	DVD	751

If you have video equipment other than Sony brand that you want to control with the TV's remote control, use the following procedure to program the remote control.

 **The equipment must have infrared (IR) remote capability in order to be used with the remote control.**



- ❑ If more than one code number is listed, try entering them one by one until you come to the correct code for your equipment.
- ❑ If you enter a new code number, the code number you previously entered at that setting is erased.
- ❑ In some cases, you may not be able to operate your equipment with the supplied remote control. In such cases, use the equipment's own remote control unit.
- ❑ Whenever you remove the batteries to replace them, the code numbers may revert to the factory setting and must be reset.

- 1 Turn to the list of "Manufacturer's Codes" on page 48, and find the three-digit code number for the manufacturer of your equipment. (If more than one code number is listed, use the number listed first.)
- 2 Open the remote and set the A/V slide switch to **AV1**, **AV2**, **AV3**, or **DVD**. Close the remote.
- 3 Press **CODE SET**.
- 4 Enter the three-digit manufacturer's code number.
- 5 Press **ENTER**.
 **You must do step 5 within 10 seconds of step 4, or you must redo steps 3 through 5.**
- 6 To check if the code number works, aim the TV's remote control at the equipment and press the **POWER** button that corresponds with that equipment. If it responds, you are done. If not, try using another code listed for that manufacturer.

Manufacturer's Codes

VCRs

Manufacturer	Code
Sony	301, 302, 303
Admiral (M. Ward)	327
Aiwa	338, 344
Audio Dynamic	314, 337
Broksonic	319, 317
Canon	309, 308
Citizen	332
Craig	302, 332
Criterion	315
Curtis Mathes	304, 338, 309
Daewoo	341, 312, 309
DBX	314, 336, 337
Dimensia	304
Emerson	319, 320, 316, 317, 318, 341
Fisher	330, 335
Funai	338
General Electric	329, 304, 309
Go Video	322, 339, 340
Goldstar	332
Hitachi	306, 304, 305, 338
Instant Replay	309, 308
JC Penney	309, 305, 304, 330, 314, 336, 337
JVC	314, 336, 337, 345, 346, 347
Kenwood	314, 336, 332, 337
LXI (Sears)	332, 305, 330, 335, 338
Magnavox	308, 309, 310
Marantz	314, 336, 337
Marta	332
Memorex	309, 335
Minolta	305, 304
Mitsubishi/ MGA	323, 324, 325, 326
Multitech	325, 338, 321
NEC	314, 336, 337
Olympic	309, 308
Optimus	327

Manufacturer	Code
Orion	317
Panasonic	308, 309, 306, 307
Pentax	305, 304
Philco	308, 309
Philips	308, 309, 310
Pioneer	308
Quasar	308, 309, 306
RCA/ PROSCAN	304, 305, 308, 309, 311, 312, 313, 310, 329
Realistic	309, 330, 328, 335, 324, 338
Sansui	314
Samsung	322, 313, 321
Sanyo	330, 335
Scott	312, 313, 321, 335, 323, 324, 325, 326
Sharp	327, 328
Signature 2000 (M. Ward)	338, 327
SV2000	338
Sylvania	308, 309, 338, 310
Symphonic	338
Tashiro	332
Tatung	314, 336, 337
Teac	314, 336, 338, 337
Technics	309, 308
Toshiba	312, 311
Wards	327, 328, 335, 331, 332
Yamaha	314, 330, 336, 337
Zenith	331

Laserdisc Players

Manufacturer	Code
Sony	701
Panasonic	704, 710
Pioneer	702

DVD Players

Manufacturer	Code
Sony	751
General Electric	755
Hitachi	758
JVC	756
Magnavox	757
Mitsubishi	761
Oritron	759
Panasonic	753
Philips	757
Pioneer	752
RCA/Proscan	755
Samsung	758
Toshiba	754
Zenith	760

Cable Boxes

Manufacturer	Code
Sony	230
Hamlin/Regal	222, 223, 224, 225, 226
Jerrold/G. I./ Motorola	201, 202, 203, 204, 205, 206, 207, 208, 218
Oak	227, 228, 229
Panasonic	219, 220, 221
Pioneer	214, 215
Scientific Atlanta	209, 210, 211
Tocom	216, 217
Zenith	212, 213

Satellite Receivers

Manufacturer	Code
Sony	801
Dish Network	810
Echostar	810
General Electric	802
Hitachi	805
Hughes	804
Mitsubishi	809
Panasonic	803
RCA/ PROSCAN	802, 808
Toshiba	806, 807

Using the Features

Overview

This chapter describes how to use the features of your TV.

<i>Topic</i>	<i>Page</i>
Watching TV	50
Using the Scrolling Index	51
Using Wide Mode	52
Using Twin View	53
Using Favorite Channels	56
Using the Freeze Function	57
Using Other Equipment with Your TV Remote Control	58

Watching TV



For a complete list of all the functions of the remote control, see pages 43-48.

To Do This ...	Do This ...
Activate the remote control to operate the TV	Press TV FUNCTION
Turn on/off the TV	Press TV POWER
Tune directly to a channel	Press 0-9 and then ENTER (or wait 3 seconds) or Press CH+/-
Adjust the volume	Press VOL +/-
Mute the sound	Press MUTING (press again to unmute)
Alternate back and forth between two channels	Press JUMP The TV alternates between the current channel and the last channel tuned.
Display the current channel number (and other information)	Press DISPLAY once to display the channel number, current time, and channel label (if set). Press DISPLAY again to turn Display off.
Switch the TV's input to the VCR, DVD player, or other connected equipment	Press TV/VIDEO repeatedly to cycle through the video equipment connected to the TV's video inputs.
Change video and audio options, customize the TV's setup, set parental controls, and more	Press MENU to display the Menu. For details, see "Using the Menus" on page 77.
Switch the TV's input between sources connected to the TV's VHF/UHF and AUX inputs	Press ANT to alternate between sources connected to the TV's VHF/UHF and AUX inputs.

Using the Scrolling Index

The Scrolling Index lets you select programs from a series of preview windows that scroll along the right side of the screen.

1 Press **INDEX**.

The Scrolling Index appears, with the currently selected program in the main (left) window, and four scrolling video pictures in the right.



As each picture on the right scrolls to the live preview window, it changes briefly from a frozen video picture to a live video. The right side continues to scroll through the entire channel list.

- 2** To change the direction of the scrolling, move the joystick **▲** or **▼**.
- 3** To change the speed of the scrolling, move and hold the joystick **▲** or **▼**.
- 4** To change a frozen video picture to a live video, move the joystick **▲** or **▼** to highlight the picture, then press **⊕**.
- 5** To move the live video (from step 4) from the right to the main (left) window of the Scrolling Index, press **⊕** again.

To exit the Scrolling Index


- ☐ Press **INDEX**.


Factors Affecting Scrolling Index


- ☐ Scrolling Index does not function if you use a cable box to view all channels.
- ☐ Sources connected to the AUX, VIDEO 5, VIDEO 6, and VIDEO 7 inputs display in the left window, but not the right windows.
- ☐ Scrolling Index does not function if parental controls are set (see page 86).


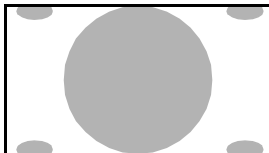

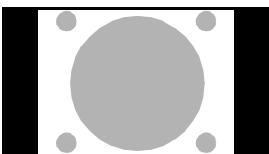

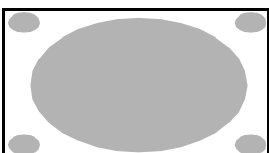

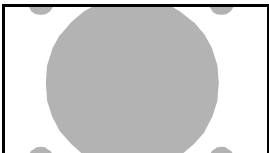
Using Wide Mode

Wide Screen mode lets you watch 4:3 normal broadcasts in several Wide Screen modes (16:9 aspect ratio).

 You can also access the Wide Mode settings in the Screen menu. For details, see page 82.

 When viewing high-definition programs broadcast in 720p/1080i, it is not possible to change between Wide Screen modes.

 Press **WIDE MODE** repeatedly to toggle through the following Wide Mode settings.

Example	Description	
 Wide Zoom	Wide Zoom enlarges the center portion of the 4:3 picture proportionately; however, only the left and right edges of the screen are stretched to fill the 16:9 screen. The picture has a normal appearance, as much as possible.	
 Normal	Normal returns the 4:3 picture to its original size. Black bars are visible at left and right sides to fill the 16:9 screen.	
 Full	Full Mode stretches the entire 4:3 picture horizontally only, to fill the 16:9 screen. The picture has an elongated appearance.	
 Zoom	Zoom Mode enlarges the entire 4:3 picture proportionately to fill the 16:9 screen. Useful for watching Letterbox movies.	

When you change channels or inputs, the Wide Mode settings revert to the **4:3 Default** setting in the Screen menu. To retain the current Wide Mode setting as channels and inputs are changed, set **4:3 Default** to **Off**. For details, see page 83.

Using Twin View

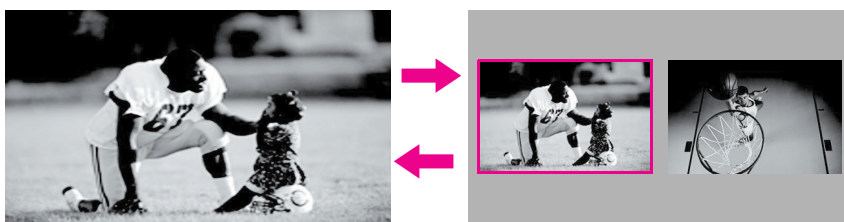
Twin View lets you see two pictures from two sources — from an antenna, VCR, DVD, etc. — on the screen at the same time. You hear the sound from only one of the sources at a time, but you can choose which source's sound is selected. You can also change the relative size of each of the pictures.

Displaying Twin Pictures

1 Tune the TV to a working channel.

2 Press **□**.

A second picture appears. The active picture is highlighted.



To cancel Twin View and watch the active picture

□ Press **□** or **⊕**.

Factors Affecting Twin View

- ❑ If you use a cable box to view all channels, the same channel appears in both windows of Twin View because the cable box unscrambles only one channel at a time.
- ❑ If you use a cable box, you can view the cable box output in one Twin View window and view a different source (such as a VCR or DVD player) in the second window by using the **TV/VIDEO** button. For details, see “Connecting Optional Equipment” on page 23.
- ❑ Sources connected to the AUX, VIDEO 5, VIDEO 6, and VIDEO 7 inputs display in the left Twin View window, but not the right.
- ❑ If you are viewing a 4:3 source and a 16:9 enhanced source (such as a DVD) side by side in Twin View, the 4:3 source appears larger.
- ❑ Twin View does not display channels that are blocked by parental settings (see page 86).

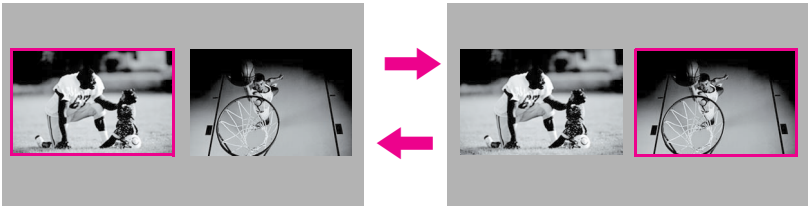
Activating the Picture

To activate the picture in the right window

Move the joystick ➡.

To activate the picture in the left window

Move the joystick ⬅.



Functions Available in the Active (Highlighted) Window

To Do This ...	Do This ...
Tune to a channel	Press 0-9 and then ENTER (or wait 3 seconds) or Press CH+/-
Adjust the volume	Press VOL +/-
Mute the sound	Press MUTING (press again to unmute)
Switch the TV's input between sources connected to the TV's VHF/UHF and AUX inputs	Press ANT
Switch the TV's input between sources connected to the TV's A/V inputs	Press TV/VIDEO
Change the picture size	Move the joystick ⬆ or ⬇. (For details, see "Changing the Picture Size" on page 55.)

Changing the Picture Size

The zoom feature lets you vary the relative size of the left and right pictures.

- 1 Move the joystick ◀ or ▶ to activate the picture that you want to resize.
- 2 Move the joystick ▲ to enlarge the picture.
- 3 Move the joystick ▼ to make the picture smaller.




When you adjust the picture sizes, the TV memorizes the change. The next time you use the Twin View function, the memorized sizes appear.

Using Favorite Channels


The Favorite Channels feature lets you select programs from a list of up to eight favorite channels that you specify.

Creating a List of Favorite Channels

 For details on using the Channel Menu, see page 84.

- 1 Press **MENU** to display the Menu.
- 2 Move the joystick **←** or **→** to highlight the Channel icon and press **⊕**.
- 3 Press **⊕** to select **Favorite Channels**.
- 4 Move the joystick **↑** or **↓** to highlight a Favorite Channel number (1-8) and press **⊕**.
- 5 Move the joystick **↑** or **↓** to highlight a channel you want to assign to the Favorite Channel number. A preview of the highlighted channel appears in the upper right of the screen. Press **⊕** to select that channel as a Favorite Channel.
- 6 To add more channels to your favorites list, repeat steps 4-5.
To clear a Favorite Channel, move the joystick **↑** or **↓** to highlight the channel you want to clear. Press **⊕** and then press **RESET**.
- 7 Press **MENU** to exit the Menu.

Displaying a List of Favorite Channels

 To assign Channel Labels (e.g., ABC, HBO, MTV, etc.) to channel numbers, as shown at right, use the Channel Label feature in the Channel Menu (see page 85).

- 1 Press **FAVORITES**. The Favorite Channels list appears.



- 2 Move the joystick **↑** or **↓** to highlight the channel you want to watch.
A preview of the highlighted Favorite Channel appears.
- 3 Press **⊕** to select the channel you want to watch.

Using the Freeze Function

The **FREEZE** button (on the inside panel, see page 46) allows you to temporarily capture a program's picture. You can use this feature to write down information such as phone numbers, recipes, etc.



The Freeze feature is not available while using Twin View.

- 1 When the program information you want to capture is displayed, press **FREEZE**.
- 2 The TV switches to Twin View mode and displays the “frozen” picture on the right, while the current program continues on the left.

Current
program
in progress



Frozen
picture

- 3 To cancel and return to normal viewing, press **FREEZE** (or just tune to another channel).

Using Other Equipment with Your TV Remote Control

All Equipment

To Do This ...	Do This ...
Switch the TV's input to the VCR, DVD player, or other connected equipment	Press TV/VIDEO repeatedly to cycle through the video equipment connected to the TV's video inputs.
Set up the TV remote control to operate non-Sony equipment	You must program the remote control the first time you use it. See "Programming the Remote Control" on pages 47 to 48.

Operating a VCR

To Do This ...	Press
Activate the remote control to operate the VCR	Open the outside cover, as shown on page 46. Then set the A/V slide switch to the position you programmed for the VCR.
Change channels	CH +/-
Record	▶ and ● simultaneously
Play	▶
Stop	■
Fast forward	▶▶
Rewind the tape	◀◀
Pause	
Search the picture forward or backward	▶▶ or ◀◀ during playback (release to resume normal playback)
Change input mode	TV/VCR

Operating a Satellite Receiver

To Do This ...	Press
Activate the remote control to operate the satellite receiver	SAT/CABLE FUNCTION
Turn on/off	SAT/CABLE POWER
Select a channel	0-9, ENTER
Change channels	CH +/-
Back to previous channel	JUMP
Display channel number	DISPLAY
Display SAT Guide	GUIDE
Display SAT Menu	MENU
Move highlight (cursor)	Move the joystick ↑ ↓ ← →
Select item	⊕

Operating a Cable Box

To Do This ...	Press
Activate the remote control to operate the cable box	SAT/CABLE FUNCTION
Turn on/off	SAT/CABLE POWER
Select a channel	0-9, ENTER
Change channels	CH +/-
Back to previous channel	JUMP

Operating a DVD Player

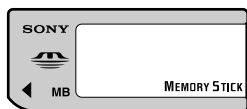
To Do This ...	Press
Activate the remote control to operate the DVD	Open the outside cover, as shown on page 46. Then set the A/V slide switch to the position you programmed for the DVD player.
Play	▶
Stop	■
Pause	
Step through different tracks of the disc	▶▶ to step forward or ◀◀ to step backward
Step through different chapters of a video disc	CH+ to step forward or CH- to step backward
Display the DVD player Menu (Setup)	MENU (inside panel)
Display the DVD Menu	DISC MENU
Move highlight (cursor)	↑ ↓ ◀ ▶
Select item	SELECT

Operating an MDP (Laserdisc Player)

To Do This ...	Press
Activate the remote control to operate the MDP	Open the outside cover, as shown on page 46. Then set the A/V slide switch to the position you programmed for the MDP player.
Play	▶
Stop	■
Pause	
Search the picture forward or backward	▶▶ or ◀◀ during playback (release to resume normal playback)
Search a chapter forward or backward	CH +/-

Using the Memory Stick Viewer

About Memory Stick



Memory Stick (sold separately) is a new, compact, portable, and versatile Integrated Circuit recording medium with a data capacity that exceeds that of a floppy disk. Memory Stick is specially designed for sharing digital data among Memory Stick compatible products such as digital cameras and digital video cameras. Because it is removable, Memory Stick can also be used for external data storage.

The Memory Stick Viewer on your TV allows you to view files that are stored on Memory Stick media. You can view:

- ❑ Digital photos (JPEG files)
- ❑ Movies (MPEG1 files)

You can also play slide show background music using MP3 files stored on your Memory Stick.

For more information about handling Memory Stick media, see “Notes on Using Memory Stick Media” on page 75.

Features

With the Memory Stick Viewer, you can:

- ❑ View photo (JPEG) and movie (MPEG1) files in a thumbnail index or Slide Show
- ❑ Set customized Slide Show options, including transitions and background audio
- ❑ Pan, zoom, and rotate photos
- ❑ Lock (protect) or delete files on the Memory Stick

Memory Stick Compatibility

This television is compatible with the following Memory Stick media types:

- ❑ Memory Stick Media
- ❑ Memory Stick Duo Media
- ❑ Memory Stick Media with Memory Select Function

File Compatibility

The Memory Stick Viewer is compatible with JPEG images taken with Sony digital still cameras and MPEG1* movies taken with Sony digital cameras and camcorders. In order to be viewable in the Memory Stick Viewer, the files must have the following file name extensions:

<i>File Type</i>	<i>Supported File Name Extensions</i>
JPEG	.jpg .jpeg
MPEG1	.mpg .mpeg

Trademark Information

Memory Stick and MagicGate are trademarks of Sony Corporation.

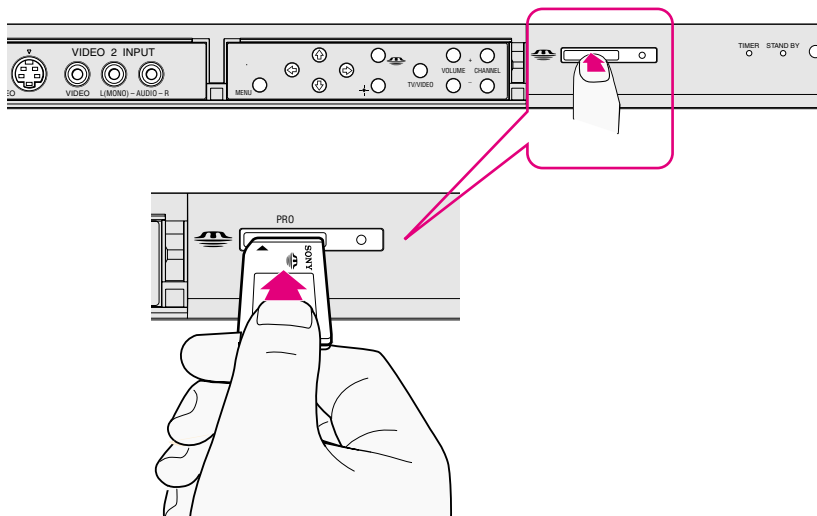
*Some variations of MPEG1 movies may not play back correctly.


Inserting and Removing a Memory Stick

If you are using a Memory Stick Duo, see “Inserting the Memory Stick Duo” on page 64.

Inserting a Memory Stick

- 1 Locate the Memory Stick slot (see page 12) and insert the Memory Stick into the Memory Stick slot as illustrated below. When inserted properly, it should slide in with little resistance and click into place.



 Be sure to insert the Memory Stick in the correct direction. If the Memory Stick is forced in the wrong way, it may become damaged.
Insert only Memory Stick media into the Memory Stick slot. Attempting to insert other objects into the slot may damage the TV.

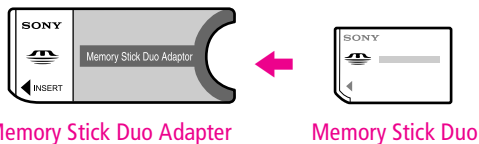
To remove the Memory Stick, see “Removing a Memory Stick” on page 65.

Inserting the Memory Stick Duo

Memory Stick Duo is a new, compact version of the standard-sized Memory Stick recording medium.

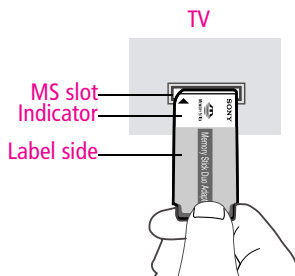
! CAUTION: Inserting the Memory Stick Duo incorrectly may result in permanent damage to the Memory Stick Duo and the TV.

- 1 Before inserting a Memory Stick Duo into the TV's Memory Stick slot, you must first insert the Memory Stick Duo into an adapter (sold separately).



! CAUTION: Inserting the Memory Stick Duo into the Memory Stick slot without the adapter may result in permanent damage to the Memory Stick Duo and the TV.

- 2 Insert the Memory Stick Duo and adapter as shown below.




! CAUTION: Inserting the Memory Stick adapter backwards or upside down may result in permanent damage to the Memory Stick adapter and the TV.

To remove the Memory Stick Duo, see “Removing a Memory Stick” on page 65.


Removing a Memory Stick

To remove a Memory Stick


- 1 Check that the Memory Stick indicator is off. (When the light is on, this indicates that the TV is reading data from the Memory Stick.)

 Removing the Memory Stick while a file is being accessed (when the Memory Stick LED on the TV's front panel is lit) may damage the Memory Stick or its contents.

- 2 Push the Memory Stick gently into the slot, and then release it. The Memory Stick media is ejected.


 Do not pull out the Memory Stick without first pushing it in; otherwise, the TV's locking mechanism may become damaged.

- 3 Pull the Memory Stick completely out of the slot.

 To protect small children from injury from Memory Stick Media, remove all Memory Stick media from the TV's Memory Stick slot and store it in a safe location when it is not in use.

Using the Memory Stick Index



Turn on the TV and insert a Memory Stick that contains the photo or movie files you want to view. For details, see page 63.

 **If the Memory Stick Index does not appear, press the MEMORY STICK button on the remote control.**

The Memory Stick Index appears, which displays thumbnail images of the files stored on the Memory Stick.



About the Lock and Movie Icons on the Thumbnail Images

-  Indicates the thumbnail is a movie (MPEG1) file instead of a photo (JPEG) file.
-  Indicates the thumbnail is locked. Locked files cannot be changed or deleted. For details, see "Protect" on page 74.

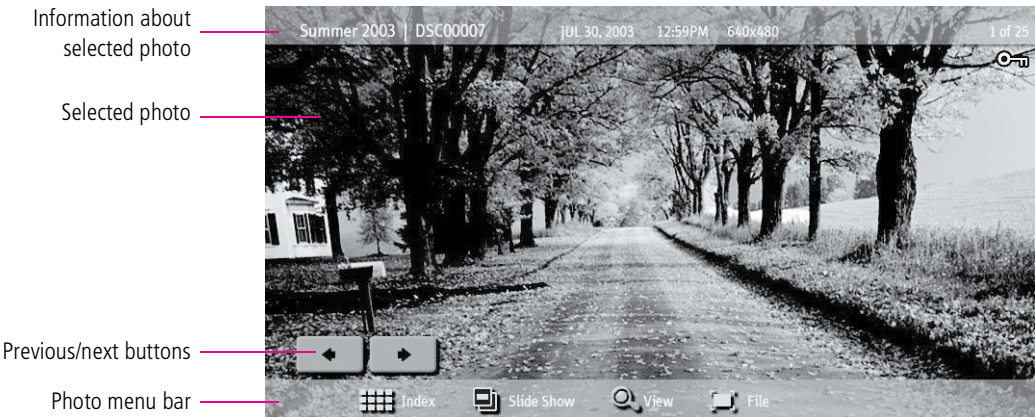
**Using the Memory
Stick Index**

The following describes how to use the Memory Stick Index.

To Do This ...	Do This ...
Move the highlight to a photo or movie (🖼️) thumbnail	Move the joystick ⬆️ ⬇️ ⬅️ ➡️.
Display the highlighted photo or movie file full screen	Press Ⓢ. For details, see “Viewing Photos” on page 68 and “Playing Movies” on page 71.
Display the next page of thumbnails	1 Move the joystick ⬇️ to select ▼. 2 Move the joystick ⬇️ to display the next page of thumbnails.
Display the previous or next page of thumbnails	1 Move the joystick ⬇️ to select ▼. 2 Move the joystick ⬅️ to select ◀️. 3 To go to the previous page, move the joystick ⬆️. To go to the next page, move the joystick ⬇️.
Use the Memory Stick menu bar to access additional options	1 Move the joystick ⬇️ to select ▼. 2 Move the joystick ⬅️ or ➡️ to select <i>Slide Show</i> , <i>Folder</i> , or <i>Memory Stick</i> . 3 Move the joystick ⬆️ or ⬇️ to select the option you want to change. For details on these options, see “Memory Stick Index Menu Bar Options” on page 73.
Move the highlight from the Memory Stick menu bar back to the thumbnails	1 Move the joystick ⬅️ or ➡️ to select ▼. 2 Move the joystick ⬆️ to return to the currently displayed thumbnails, or ⬇️ to display the next page of thumbnails.
Exit Memory Stick Viewer	Press the MEMORY STICK button on the remote control.

Viewing Photos

When you select a photo from the Memory Stick Index (described on page 66), it displays as shown below, with the following controls.



JPEGs captured using a digital video camera may appear to display motion in full screen. This is a result of the way digital video cameras record still images, and is not a result of a malfunction with the TV.

Photo Controls



When the menu is hidden, move the joystick or to go to the previous or next photo.

To Do This ...	Do This ...
Display the next or previous file on the Memory Stick	Move the joystick to highlight the (Previous/Next) button. Then move the joystick to go to the previous file, or to go to the next file.
Hide the Photo menu bar, displaying only the photo	With the highlight in the Photo menu bar, move the joystick .
Display the hidden Photo menu bar	Move the joystick .
Display the Memory Stick Index again	Move the joystick to highlight Index in the Photo menu bar and press . For details on the Memory Stick Index, see page 67.
Access additional options in the Photo menu bar	See “Photo Menu Bar Options” on page 69.
Exit Memory Stick Viewer	Press the MEMORY STICK button on the remote control.



**Photo Menu
Bar Options**

The Photo menu bar lets you access additional photo viewing options.

To access the Photo menu bar

- 1** Move the joystick  or  to select **Slide Show**, **View**, or **File**.
- 2** Move the joystick to select the desired option.

Option	Description	
Index	Displays the Memory Stick Index, with the highlight on the thumbnail of the currently displayed photo. For details, see “Using the Memory Stick Index” on page 66.	
Slide Show	Displays the Slide Show menu. For details, see “Slide Show Menu Options” on page 73.	
View	Zoom/Pan	Allows you to magnify and pan across the photo. For details, see “Using Zoom and Pan” on page 70.
	Rotate	Allows you to rotate the photo in 90 degree increments clockwise or counterclockwise. For details, see “Using Rotate” on page 70.
File	Information	Allows you to turn on or off the display of file information. Select On or Off .
	Protect	Allows you to the protect the JPEG file from any changes. When a JPEG file is protected, it cannot be rotated or deleted. Select On or Off .
	Delete	Deletes the JPEG file from the Memory Stick. You cannot delete a JPEG file that has been protected (or if the Memory Stick is locked).

 JPEG files that are protected are indicated by the Lock  icon.

Using Zoom and Pan

To Zoom and Pan a photo

- 1 In the Photo menu bar, move the joystick to highlight **View**.
- 2 Move the joystick to highlight **Zoom/Pan** and press \oplus .
- 3 Specify the zoom center point by moving the joystick; then press \oplus to set the center.

The Zoom and Pan controls are displayed.

Indicates Zoom increment



To Do This ...	Do This ...
Zoom in (increase magnification) or out (decrease magnification)	Move the joystick to highlight Zoom and press \oplus . Then move the joystick \blacktriangle to zoom in or \blacktriangledown to zoom out. To stop using Zoom, press \oplus .
Pan (left, right, up, down)	(You can use Pan only when the photo is magnified using Zoom.) Move the joystick to highlight Pan and press \oplus . Then move the joystick \blacktriangleleft \blacktriangleright \blacktriangleup \blacktriangledown to pan around the photo. To stop using Pan, press \oplus .
Exit the Zoom/Pan controls	Move the joystick to highlight Done and press \oplus .
Exit Memory Stick Viewer	Press the MEMORY STICK button on the remote control.

Using Rotate

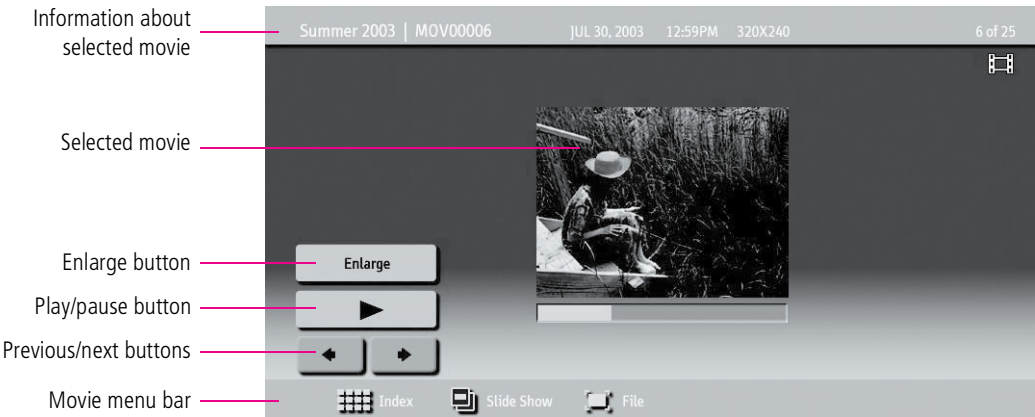
To Rotate a photo

- 1 In the Photo menu bar, move the joystick to highlight **View**.
- 2 Move the joystick to highlight **Rotate**.
- 3 To rotate clockwise, move the joystick to highlight **Clockwise** and press \oplus .
To rotate counterclockwise, move the joystick to highlight **Counterclockwise** and press \oplus .


The photo is rotated 90 degrees each time you press \oplus .

Playing Movies

When you select a movie from the Memory Stick Index (described on page 66), it displays as shown below, with the following controls.





Movie Controls

 The quality of the movie when enlarged depends on the resolution of the MPEG1 file. See your camera's instruction manual for details.

To Do This ...	Do This ...
Enlarge the movie window	Move the joystick to highlight Enlarge , and then press + . To display the movie controls again, press + . When the movie ends, the movie controls are displayed again.
Play the movie with the movie controls displayed	Move the joystick to highlight ▶ (Play) and then press + .
Pause the movie	Move the joystick to highlight ⏏ (Pause) and then press + .
Display the previous or next file on the Memory Stick	Move the joystick to highlight the ◀ ▶ (Previous/Next) button. Then move the joystick ◀ to go to the previous file, or ▶ to go to the next file.
Hide the Movie menu bar, displaying only the movie	With the highlight in the Movie menu bar, move the joystick ↓ .
Display the hidden Movie menu bar	Move the joystick ↑ .
Access additional options in the Movie menu bar	See "Movie Menu Bar Options" on page 72.
Exit Memory Stick Viewer	Press the MEMORY STICK button on the remote control.

Movie Menu Bar Options

 MPEG1 files that are protected are indicated by the Lock  icon.


To access the Movie menu bar


- 1 Move the joystick to highlight **Index** in the Movie menu bar.
- 2 Move the joystick **◀** or **▶** to select **Index**, **Slide Show**, or **File**.
- 3 Move the joystick to select the desired option.


Option	Description	
Index	Displays the Memory Stick Index, with the highlight on the thumbnail of the currently displayed movie.	
Slide Show	Displays the Slide Show menu. For details, see “Slide Show Menu Options” on page 73.	
File	Information	Determines whether file information is displayed. Select On or Off .
	Protect	Allows you to protect the MPEG1 file from any changes. When an MPEG1 file is protected, it cannot be deleted. Select On or Off .
	Delete	Deletes the MPEG1 file from the Memory Stick. You cannot delete an MPEG1 file that has been protected (or if the Memory Stick is locked).

Memory Stick Index Menu Bar Options

Slide Show Menu Options

 The Slide Show menu is the same whether you select it from the Memory Stick Index (page 66), Photo (page 68), or Movie (page 71) menus.

 When you select **Complete List**, it may take a moment to display the list of all MP3 files.


 Some JPEG files may take longer to display than others, which may make it seem longer than the interval you selected for **Slide Duration**.

The Slide Show menu includes the following options:

Option	Description
Start	Starts the Slide Show.
Music	Allows you to select background audio to play during the Slide Show.
Off	No additional background audio is played during the Slide Show. Audio that is associated with the JPEG or MPEG1 files will play.
Play All	Plays all MP3 files on the Memory Stick. The Piano MP3 file is not played.
Piano	Plays the MP3 file stored in the TV's internal memory. (This file is indicated by a different color than the MP3 files on the Memory Stick.)
(List of MP3 Files)	Displays a list of all MP3 files found at the top level (root) of the Memory Stick. To show additional MP3 files stored in other folders on the Memory Stick, select Complete List .
Complete List	Displays a list of all available MP3 files. The list is sorted in alphabetical order, grouped by folder.
Transition Effect	Allows you to select an effect to be used when advancing to the next file in the Slide Show.
Off	Uses a quick change, or cut.
Fade	Uses a cross fade.
Wipe ➡	Uses a linear sweep that moves across the screen, revealing the next image while covering the previous image.
Wipe ⬅	
Wipe ⬆	
Wipe ⬇	
Random	Randomly cycles through all Transition Effects.
Slide Duration	Allows you to specify a timed slide advance after a selected time interval. Select from 3 sec , 5 sec , 10 sec , 30 sec , 1 min , 5 min .
Repeat	On Slide Show continuously loops.
	Off Slide Show plays once through all files and ends.

Folder Menu Options



Files that are protected are indicated by the Lock  icon.



The Rotate and Protect functions do not change the file's modification date.

The Folder menu includes the following options:

Option	Description
Select Contents	Allows you to select different folders to view in the Memory Stick Viewer.
Digital Camera Folders	Selects all folders within the directories defined by the DCF rules used by Sony digital cameras (see page 75). JPEG and MPEG1 files in those directories are recognized even if they do not conform to the DCF file naming rules.
Select a Folder	Allows you to access individual folders on the Memory Stick.
Protect	Allows you to protect files from any changes. When a file is protected, it cannot be rotated or deleted. The Protect options affect files currently shown in the Memory Stick Index.
Protect All	Protects all files.
Protect None	Unprotects all files.
File Order	Allows you to change the order in which the Memory Stick files are displayed.
Date Order	Displays files in chronological order by modification date.
Date Order Reverse	Displays files in reverse chronological order by modification date.
Alphabetical	Displays files in alphabetical order by filename.
Filter	Allows you to selectively display specific file types within the selected folder.
Show All	Displays all readable files.
Show Photos Only	Displays only photo (JPEG) files.
Show Movies Only	Displays only movie (MPEG1) files.

Memory Stick Menu

The Memory Stick menu displays the current status of the Memory Stick, including total capacity, used capacity, and free capacity.

Notes on Using Memory Stick Media

About DCF File Names

Most Sony brand digital still and video cameras automatically record still photo and movie files using DCF compliant directory and file names.

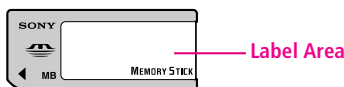
If you selected the **Digital Camera Folders** option, as described on page 74, you might want to have your digital camera's instruction manual handy in order to check how files and directories are organized for your specific model of digital camera.

DCF stands for "Design Rules for Camera File Systems," which are specifications established by the Japan Electronic Industry Development Association (JEIDA).

Memory Stick Precautions

When using Memory Stick media, follow these precautions:

- ❑ To avoid permanent damage to still image data, do not turn off the TV or remove Memory Stick media from the insertion slot while data is being read (as indicated by the Memory Stick indicator light being on).
- ❑ Avoid touching the terminal of Memory Stick media or bringing it into contact with a metal object.
- ❑ Do not drop, bend, or submit Memory Stick media to external shock.
- ❑ Do not disassemble or modify Memory Stick media.
- ❑ Avoid getting liquid on Memory Stick media.
- ❑ Apply labels only within the designated label area.










- ❑ To avoid permanent damage to still image data, do not use or store Memory Stick media in a location subject to:
 - ❑ High temperature (such as near a heater or inside a hot car)
 - ❑ High humidity
 - ❑ Direct sunlight
 - ❑ Corrosive substances
 - ❑ Magnetic fields
 - ❑ Excessive dust
 - ❑ Static electricity or electric noise
 - ❑ Electric surges
- ❑ Store and carry Memory Stick media in its original case to ensure protection of stored data.
- ❑ Save a backup of stored data.

Using the Menus

Overview


The Menu gives you access to the following features:

Menu Icon	Description	Page
	Allows you to make adjustments to your picture settings. It also allows you to customize the Picture Mode based on the type of program you are viewing, select Advanced Video options, and more.	78
	Offers enhanced audio options such as listening to second audio programming (SAP) or customizing the Effect of the sound on your TV.	80
	Allows you to make Wide Mode adjustments and make changes to the screen's vertical center and size.	82
	Allows you to set up a Favorite Channel list, run the Auto Program function, skip and label channels, and more.	84
	Lets you control the viewing of programs based on their ratings.	86
	Provides options for setting up your system, including selecting closed caption modes, setting the Timer, labeling video inputs, selecting the language of the on-screen menus, and more.	89

 Press **MENU** to enter and exit Menus.

Navigating Through Menus

To Do This ...	Press
Display the Menu	MENU
Move through the Menu	← →
Move through the Menu options	↑ ↓
Select an option to change	⊕
Change an option's settings	↑ ↓ ← →
Select (confirm) changed setting	⊕ or ←
Exit the Menu	MENU

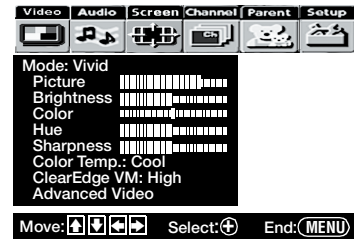
 Menus include navigation help text that appears at the bottom of each Menu.



Using the Video Menu

To select the Video Menu


- 1 Press **MENU**.
- 2 Move the joystick **←** or **→** to highlight the Video icon and press **⊕**.
- 3 Move the joystick to highlight an option. Press **⊕** to select an option.
- 4 Move the joystick **↑** **↓** **←** **→** to change settings. Press **⊕** to select the changed setting.
- 5 Press **MENU** to exit the Menu.




To restore the factory default settings for Video settings:

- ❑ Press **RESET** on the remote control when in the Video Menu.


Selecting Video Options


 To change from one Mode to another, use the **PIC MODE** button on the remote control.






 You can alter the Video Menu settings (**Picture**, **Brightness**, **Color**, etc.) for each Mode.


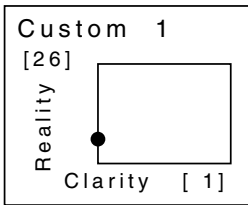

The Video Menu includes the following options:

Option	Description
Mode	Vivid Select for enhanced picture contrast and sharpness.
Customized picture viewing	Standard Select for standard picture settings.
	Movie Select to display a softer picture.
	Pro Select to display a picture with minimum enhancements.
Picture	Adjust to increase picture contrast and deepen the color, or decrease picture contrast and soften the color.
Brightness	Adjust to brighten or darken the picture.
Color	Adjust to increase or decrease color intensity.
Hue	Adjust to increase or decrease the green tones.
Sharpness	Adjust to sharpen or soften the picture.
Color Temp. White intensity adjustment	Cool Select to give the white colors a blue tint.
	Neutral Select to give the white colors a neutral tint.
	Warm Select to give the white colors a red tint (NTSC-Standard).

 To change quickly from one DRC Mode to another, use the **DRC MODE** button on the remote control.

 To change quickly from one DRC Palette to another, use the **DRC PALETTE** button on the remote control.

 For best results, adjust the Reality by moving the joystick   until you are satisfied with the level of detail. Then adjust the Clarity by moving the joystick   until you have a smooth, detailed image.

Option	Description
ClearEdge VM Velocity Modulation	Sharpens picture definition to give every object a sharp, clean edge. Select from High , Medium , Low , Off .
Advanced Video	Select Program to choose among the DRC Mode and DRC Palette options.
DRC Mode	Creates a high-resolution picture with 4x density, for high quality sources (i.e., DVD player, satellite receiver).
Interlaced	Recommended for moving pictures.
Progressive	Recommended for still images and text.
CineMotion	Provides an optimized display by automatically detecting film content and applying a reverse 3/2 pulldown process. Moving pictures will appear clearer and more natural-looking.
DRC Palette	Allows you to customize the level of detail (Reality) and smoothness (Clarity). You can create up to three Custom DRC Palettes. <ol style="list-style-type: none"> Move the joystick to highlight Custom 1, Custom 2, or Custom 3 and then press . The DRC palette appears. <div data-bbox="812 876 1061 1078" data-label="Diagram">  </div> Move the joystick to adjust the position of the marker (●). As you move the ● higher along the Reality axis, the picture becomes more detailed. As you move the ● to the right along the Clarity axis, the details become more smoothly integrated with one another. To save the setting, press . <p>To return the Custom options to the default factory settings, press the RESET button.</p>



Using the Audio Menu

To select the Audio Menu

- 1 Press **MENU**.
- 2 Move the joystick **◀** or **▶** to highlight the Audio icon and press **⊕**.
- 3 Move the joystick to highlight an option. Press **⊕** to select an option.
- 4 Move the joystick **▲** **▼** **◀** **▶** to change settings. Press **⊕** to select the changed setting.
- 5 Press **MENU** to exit the Menu.



To restore the factory default settings for Treble, Bass, and Balance

- ❑ Press **RESET** on the remote control when in the Audio Menu.

Selecting Audio Options



To change quickly from one Effect to another, use the **Ⓢ** button on the inside panel of the remote control.

The Audio Menu includes the following options:

Option	Description
Treble	Adjust to decrease or increase higher-pitched sounds.
Bass	Adjust to decrease or increase lower-pitched sounds.
Balance	Adjust to emphasize left or right speaker balance.
Steady Sound	Auto Select to stabilize the volume.
	Off Select to turn off Steady Sound.
Effect	TruSurround Select for surround sound (for stereo programs only).
	Simulated Adds a surround-like effect to mono programs.
	Off Normal stereo or mono reception.
MTS <i>Enjoy stereo, bilingual and mono programs</i>	Stereo Select for stereo reception when viewing a program broadcast in stereo.
	Auto SAP Select to automatically switch the TV to second audio programs when a signal is received. (If no SAP signal is present, the TV remains in Stereo mode.)
	Mono Select for mono reception. (Use to reduce noise during weak stereo broadcasts.)

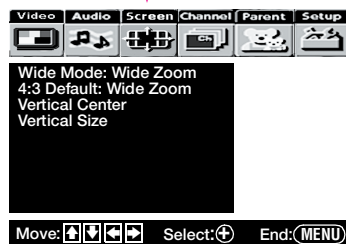
Option	Description	
Speaker	On	Select to turn on the TV speakers.
	Off	Select to turn off the TV speakers and listen to the TV's sound only through your external audio system speakers.
Audio Out <i>Easy control of volume adjustments</i>	This option can be set only when the Speaker option is set to Off .	
	Variable	The TV's speakers are turned off, but the volume output from your audio system can still be controlled by the TV's remote control.
	Fixed	The TV's speakers are turned off and the volume output of the TV is fixed. Use your audio receiver's remote control to adjust the volume through your audio system.




Using the Screen Menu

To select the Screen Menu

- 1 Press **MENU**.
- 2 Move the joystick **←** or **→** to move to the Screen icon and press **⊕**.
- 3 Move the joystick **↑** or **↓** to move to an option. Press **⊕** to select an option.
- 4 Move the joystick **←→↑↓** to change settings. Press **⊕** to select the changed setting.
- 5 Press **MENU** to exit the Menu.




Selecting Screen Mode Options


 To change from one Wide Mode to another, use the **WIDE MODE** button on the remote control.







The Screen menu includes the following options:

Option	Description
Wide Mode <i>Select a Wide Mode to use for 4:3 sources.</i>	Wide Zoom Select to enlarge the 4:3 size picture, while the upper and lower parts of the picture are condensed to fit the wide screen.
	Normal Select to return the 4:3 picture to normal mode.
	Full Select to enlarge the 4:3 picture horizontally only, to fill the wide screen.
	Zoom Select to enlarge the 4:3 picture horizontally and vertically to an equal aspect ratio that fills the wide screen.

Wide Mode is unavailable while in Twin View, or when viewing HD (1080i, 720p) sources.

 In some cases, wide-screen programs will be shown in aspect ratios that require the display of black bands at the top and bottom of your 16:9 screen. For more details, see page 99.

 If **4:3 Default** is set to anything but **Off**, the Wide Mode setting changes only for the current channel. When you change channels (or inputs), Wide Mode is automatically replaced with the **4:3 Default** setting. To retain the current Wide Mode setting as channels and inputs are changed, set **4:3 Default** to **Off**.

Option	Description
4:3 Default <i>Select the default Screen Mode to use for 4:3 sources</i>	Wide Zoom Select to enlarge the 4:3 size picture, while the upper and lower parts of the picture are condensed to fit the wide screen.
	Normal Select to return the 4:3 picture to normal mode.
	Full Select to enlarge the 4:3 picture horizontally only, to fill the wide screen.
	Zoom Select to enlarge the 4:3 picture horizontally and vertically to an equal aspect ratio that fills the wide screen.
	Off Select to continue using the current Wide Mode setting when the channel or input is changed.
Vertical Center	Allows you to move the position of the picture up and down in the window. (Available only in Wide Zoom and Zoom modes.) Move the joystick  or  and press  to choose a correction between +15 and -15 (Zoom mode), and +5 and -5 (Wide Zoom mode).
Vertical Size	Allows you to adjust the vertical size of the picture. (Available only in Wide Zoom and Zoom modes.) Move the joystick  or  and press  to choose a correction between +7 and -7.



Using the Channel Menu


To select the Channel Menu


- 1 Press **MENU**.
- 2 Move the joystick **◀** or **▶** to highlight the Channel icon and press **⊕**.
- 3 Move the joystick to highlight an option. Press **⊕** to select an option.
- 4 Move the joystick **↑** **↓** **◀** **▶** to change settings. Press **⊕** to select the changed setting.
- 5 Press **MENU** to exit the Menu.



















Selecting Channel Options

The Channel Menu includes the following options:

Option	Description	
Favorite Channels	Lets you set up a list of your favorite channels. For details, see “Using Favorite Channels” on page 56.	
Cable	On	Select if you are receiving cable channels with a CATV cable.
	Off	Select if you are using an antenna.
 You should run Auto Program after changing this option.		
Channel Fix <i>Useful when you have a cable box or satellite receiver connected</i>	Off	Turns off Channel Fix.
	2-6	“Fix” your TV’s channel setting to 2–6 and use the cable box or satellite receiver to change channels. Select one of these settings if you connected the equipment to the VHF/UHF jack.
	AUX 2-6	Same as 2–6, except you select one of these settings if you connected the equipment to the AUX jack (see page 15).
	Video 1	Use this setting if you have connected the equipment to the A/V input jacks.
Auto Program	Automatically sets up the channel list on the TV for all receivable channels.	

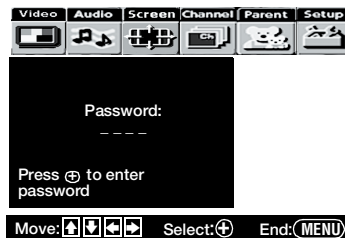
 Channels that you set to be skipped can be accessed only with the 0-9 buttons.

Option	Description
Channel Skip/Add	<p>Allows you to customize the channel list that appears when you use the CH+/- buttons.</p> <ol style="list-style-type: none">1 Move the joystick  or  to scroll through the channels until you find the channel you want to skip or add. Then press  to select it.2 Move the joystick  or  to toggle between Add or Skip. Then press  to select.3 To add or skip more channels, repeat steps 1 and 2.4 Move the joystick  to return to the Channel Menu, or press MENU to exit the Menus.
Channel Label	<p>Allows you to assign labels (such as station call letters) to channel numbers. You can label up to 20 channels.</p> <ol style="list-style-type: none">1 Move the joystick to highlight Channel and press .2 Move the joystick   to scroll through the channel numbers (1-125). Then press  to select the channel number that you want to assign a label.3 Move the joystick to highlight Label and press .4 Move the joystick   to scroll through the label characters (A-Z, 0-9, etc.). Then press  to select the highlighted character.5 Repeat to add up to 5 characters to the label.6 To assign labels to more channels, repeat steps 1-4.7 Move the joystick  to return to the Channel Menu, or press MENU to exit the Menus.



Using the Parent Menu

The Parent Menu allows you to set up the TV to block programs according to their content and rating levels.



To select the Parent Menu

- 1 Press **MENU**.
- 2 Move the joystick **←** or **→** to highlight the Parent icon and press **⊕**.
- 3 Use the **0-9** buttons on the remote control to enter a four-digit password.
- 4 If this is the first time you are creating this password, confirm the password by entering it again. (The Parent Menu options appear.)
- 5 Move the joystick **↑ ↓ ← →** to change settings. Press **⊕** to select the changed setting.
- 6 Press **MENU** to exit the Menu.

You need your password for any future access into the Parent Menu. If you lose your password, see "Lost password" on page 100.

Selecting Parent Options


If you are not familiar with the Parental Guideline rating system, you should select **Child**, **Youth**, or **Young Adult** to help simplify the rating selection. To set more specific ratings, select **Custom**.


For descriptions of **Child**, **Youth**, and **Young Adult** ratings, see page 87.


The Parent Menu includes the following options:

Option	Description
Parental Lock	Off Parental lock is off. No programs are blocked from viewing.
Turn ratings on/off and select a rating system	Child Maximum ratings permitted are: <input type="checkbox"/> US: TV-Y, TV-G, G <input type="checkbox"/> Canada: C, G, TV-Y
	Youth Maximum ratings permitted are: <input type="checkbox"/> US: TV-PG, PG <input type="checkbox"/> Canada: C8+, PG, 8 ans+, TV-PG
	Y. Adult Maximum ratings permitted are: <input type="checkbox"/> US: TV-14, PG-13 <input type="checkbox"/> Canada: 14+, 13 ans+, TV-14
	Custom Select to set ratings manually. <input type="checkbox"/> US: See page 87 for details. <input type="checkbox"/> Canada: See page 88 for details.
Change Password	For changing your password.
Select Country	U.S.A. Select to use USA ratings (see page 87).
	Canada Select to use Canadian ratings (see page 88).

US Models:
Selecting Custom
Rating Options

 The Content-Based Ratings are linked to the level of the Age-Based Rating. For example, a program with an Age-Based Rating of TV-PG V (Violence) rating may contain moderate violence, while a TV-14 V (Violence) rating may contain more intense violence.

 To ensure maximum blocking capability, set the Age-Based Ratings.

 If you block unrated TV programs, be aware that the following types of programs may be blocked: emergency broadcasts, political programs, sports, news, public service announcements, religious programs and weather.

Viewing Blocked
Programs

For US models, the Custom Rating Menu includes the following options. (For Canadian models, see page 88.)

Option	Description
Movie Rating	G All children and General Audience.
	PG Parental Guidance suggested.
	PG-13 Parental Guidance for children under 13.
	R Restricted viewing, parental guidance is suggested for children under 17.
	NC-17 and X No one 17 or under allowed.
TV Rating <i>Block programs by their rating, content or both</i>	Age-Based Ratings
	TV-Y All children.
	TV-Y7 Directed to children age 7 and older.
	TV-G General Audience.
	TV-PG Parental Guidance suggested.
	TV-14 Parents Strongly cautioned.
	TV-MA Mature Audience only.
	Content-Based Ratings
	FV Fantasy Violence.
	D Suggestive Dialogue.
	L Strong Language.
	S Sexual situations.
	V Violence.
Unrated <i>Block programs or movies that are broadcast without a rating</i>	Block Blocks all programs and movies that are broadcast without a rating.
	Allow Allows programs and movies that are broadcast without a rating.

You can view blocked programs by entering the password. Press the **ENTER** button when tuned to a blocked program, then enter the password. This temporarily switches off the Parental Lock. To reactivate the Parental Lock settings, turn off the TV. When the TV is turned on again, your Parental Lock settings are reactivated.

**Canadian Models:
Selecting Custom
Rating Options**

For Canadian models, the Custom Rating Menu includes the following options. (For US models, see page 87.)

Option	Description
English Rating	C All children.
	C8+ Children 8 years and older.
	G General programming.
	PG Parental Guidance.
	14+ Viewers 14 and older.
	18+ Adult programming.
French Rating	G General programming.
	8 ans+ Not recommended for young children.
	13 ans+ Not recommended for ages under 13.
	16 ans+ Not recommended for ages under 16.
	18 ans+ Programming restricted to adults.
U.S.A. Rating	See "US Models" on page 87 for details.

**Viewing Blocked
Programs**

You can view blocked programs by entering the password. Press the **ENTER** button when tuned to a blocked program, then enter the password. This temporarily switches off the Parental Lock. To reactivate the Parental Lock settings, turn off the TV. When the TV is turned on again, your Parental Lock settings are reactivated.



Using the Setup Menu

To select the Setup Menu


- 1 Press **MENU**.
- 2 Move the joystick **◀** or **▶** to highlight the Setup icon and press **⊕**.
- 3 Move the joystick to highlight an option. Press **⊕** to select an option.
- 4 Move the joystick **↑** **↓** **◀** **▶** to change settings. Press **⊕** to select the changed setting.
- 5 Press **MENU** to exit the Menu.





Selecting Setup Options




The Setup Menu includes the following options:


















Option	Description
Caption Vision	Allows you to select from three closed caption modes (for programs that are broadcast with closed caption).
CC1, CC2, CC3, CC4	Displays a printed version of the dialog or sound effects of a program. (Should be set to CC1 for most programs.)
Text1,Text2, Text3,Text4	Displays network/station information presented using either half or the whole screen (if available). For closed captioning, set to CC1 .
Info	Displays the program name and the time remaining in the program (if the broadcaster offers this service). Displays when the channel is changed or the DISPLAY button is pressed.
Off	Turns off Caption Vision.

 The **Skip** label is useful for inputs that do not have equipment connected to them.

 Normally, **Tilt Correction** and **Vertical Correction** only need to be adjusted the first time you turn on the unit and after the unit is moved to a new location.

Option	Description				
Video Label	<p>Allows you to identify A/V equipment you connected to the TV, such as a VCR, DVD, etc. For example, if you have a DVD player connected to the VIDEO 5 jack, you can select the label DVD for the VIDEO 5 input. Then when you press the TV/VIDEO button to change inputs, the Video Label you assigned to that input appears on screen.</p> <ol style="list-style-type: none"> 1 Move the joystick ▲ or ▼ to highlight the video input (VIDEO 1-7) to which you want to assign a label. Then press ⊕ to select the input. 2 Move the joystick ▲ or ▼ to highlight one of the displayed labels. Then press ⊕ to select the label. <p>You can select from the following labels for each input:</p> <table> <tr> <td>Video 1/2/3/4</td><td>VHS, DVD, Receiver, Satellite, Cable Box, 8mm, DTV, Game, LD, Web, Beta, Skip</td></tr> <tr> <td>Video 5/6/7</td><td>DVD, Satellite, Cable Box, DTV, HD, Skip</td></tr> </table> <p> If you select Skip, your TV skips this input when you press the TV/VIDEO button.</p>	Video 1/2/3/4	VHS, DVD, Receiver, Satellite, Cable Box, 8mm, DTV, Game, LD, Web, Beta, Skip	Video 5/6/7	DVD, Satellite, Cable Box, DTV, HD, Skip
Video 1/2/3/4	VHS, DVD, Receiver, Satellite, Cable Box, 8mm, DTV, Game, LD, Web, Beta, Skip				
Video 5/6/7	DVD, Satellite, Cable Box, DTV, HD, Skip				
Tilt Correction	<p>Allows you to correct any tilt of the picture.</p> <p>Move the joystick ◀ or ▶ to choose a correction between +7 and -7 and press ⊕.</p>				
Vertical Correction	<p>Allows you to make a vertical correction to the picture.</p> <p>Move the joystick ◀ or ▶ to choose a correction between +5 and -5 and press ⊕.</p>				
Language	<p>Select to display all on-screen Menus in your language of choice.</p>				

 To go directly to programming Timer 1 or 2, press  instead of moving the joystick .

Option	Description
Clock/Timers	Select to set the clock and to program your TV to turn on and off at two scheduled viewing times.
Timer 1	You can use the Timers to program the TV to turn on and off and tune to a specific channel at two scheduled viewing times.
Timer 2	
Timer 1 and Timer 2 are not available to be set until you set the Current Time.	
1	Move the joystick  or  to highlight Timer 1 or Timer 2. To set the timer, move the joystick  .
2	Move the joystick  or  to highlight one of the following options, then press  .
Program	Select to set the Timer by day, time, duration, and channel.
Off	Select to turn off the Timer. (Your previous settings are saved.)
3	If you selected Program in step 2, move the joystick  and  to set the day(s), hour, minute, duration, and channel number. Press  or move the joystick  to confirm each setting and move to the next setting. Move the joystick  to go back to the previous setting.
4	Press MENU to exit the Menu. An LED on the front panel will light, indicating the timer has been set.
Current Time	
1	Press  to select Current Time.
2	Move the joystick  and  to set the current time (day, hour, and minute). Press  (or move the joystick ) to confirm each setting and move to the next setting. Move the joystick  to go back to the previous setting.
3	Press MENU to exit the Menu.
Demo	Runs a demonstration of on-screen Menus.

Other Information

Overview

This chapter includes the following topics:

<i>Topic</i>	<i>Page</i>
Glossary	94
Contacting Sony	95
Troubleshooting	95
Specifications	101
Optional Accessories	101
Index	103

Glossary

analog signal

A signaling method that uses continuous changes in the amplitude or frequency of an electronic transmission to convey information.

aspect ratio

Refers to the ratio between the width and height of the screen. This TV has a 16:9 (widescreen) aspect ratio, as opposed to a 4:3 aspect ratio.

4:3 aspect ratio



16:9 aspect ratio



component video



Component video is sent through three cables: two color shade (chrominance) signals and one brightness (luminance) signal. Component video achieves greater color accuracy than composite video or S VIDEO by splitting chrominance into two separate portions.

composite video



Composite video is sent through a single cable. Composite video combines the color shade (chrominance) and brightness (luminance) information into one video signal.

degauss

A process that demagnetizes the metal components in the TV monitor, which eliminates image distortion that can result from magnetic charges acquired by the TV's components. Your TV degausses automatically when it is turned on.

digital television (DTV)

A new technology for transmitting and receiving broadcast television signals. DTV provides clearer resolution and improved sound quality over analog television.

National Television System Committee (NTSC)

A unit of the Federal Communications Commission, Washington, DC, that establishes television standards in the United States, such as NTSC Color, the standard used in this TV.

RF

Radio Frequency. That part of the frequency spectrum that is used to transmit TV and radio signals.

S VIDEO



S VIDEO requires a single cable, which carries the brightness (luminance) and color (chrominance) signals of the picture separately. S VIDEO provides better resolution than composite video, which carries the signals together.

VHF/UHF

VHF (Very High Frequency) is the part of the frequency spectrum from 30 to 300 megahertz. UHF (Ultra High Frequency) is the part of the frequency spectrum from 300 to 3,000 megahertz.

480i

Provides 480 lines of resolution. Displays images using interlaced scanning, which first transmits all the odd lines on the TV screen and then the even lines.

480p

Provides 480 lines of resolution. Displays images using progressive scanning, which transmits each line from top to bottom.

720p

Provides 720 lines of resolution. Displays images using progressive scanning, which transmits each line from top to bottom.

1080i

Provides 1080 lines of resolution. Displays images using interlaced scanning, which first transmits all the odd lines on the TV screen and then the even lines. 1080i is one of the formats used by HDTV (High Definition TV).

Contacting Sony

If, after reading these operating instructions, you have additional questions related to the use of your Sony television, please call our Customer Information Services Center at 1-800-222-SONY (7669) (US residents only) or (416) 499-SONY (7669) (Canadian residents only).

Before calling Sony customer support, please write down the model and serial numbers of your TV. You'll find this information on the front cover of this manual.

Troubleshooting

Twin View

Problem	Possible Remedies
I cannot get Twin View to work	<ul style="list-style-type: none"> ❑ If you are using a cable box to unscramble all channels (as shown on page 22), you cannot use the Twin View feature. This is because the cable box can unscramble only one channel at a time. But if you need the cable box to unscramble only some (usually premium) channels, you can use Twin View for unscrambled channels if you connect both a cable and cable box, as shown on page 20. ❑ You can use Twin View to view a signal from a different source that is connected to the TV's A/V jacks (such as a VCR or DVD player) in the second window by pressing the TV/VIDEO button while in Twin View. ❑ Sources connected to the AUX, VIDEO 5, VIDEO 6, and VIDEO 7 inputs display in the left Twin View window, but not the right.
There is no Twin View window, or it is just static	<ul style="list-style-type: none"> ❑ Be sure the Twin View window is set to a video input or channel that has a signal airing. ❑ You might be tuned to a video input with nothing connected to it. Try cycling through the video inputs by pressing the TV/VIDEO button. ❑ If you connected equipment to the TV's AUX jack, it will display in the left Twin View window, but not the right.
Twin View cannot display anything but TV channels	<ul style="list-style-type: none"> ❑ Try cycling through the video inputs by pressing the TV/VIDEO button. Check that the Video Label option is not set to Skip. (See the Setup Menu on page 89.)
Twin View displays the same program in both windows	<ul style="list-style-type: none"> ❑ Both Twin View windows might be set to the same channel. Try changing channels in either window.

Remote Control





Problem	Possible Remedies
Remote control does not operate	<ul style="list-style-type: none"> ❑ The batteries could be weak. Replace the batteries. ❑ Check the orientation of the batteries. ❑ Press the TV FUNCTION button. You may have inadvertently pressed the SAT/CABLE FUNCTION button, which changes the remote control to SAT or CABLE mode. ❑ Make sure the TV's power cord is connected securely to the wall outlet. ❑ Locate the TV at least 3-4 feet away from fluorescent lights.
Cannot change channels with the remote control	<ul style="list-style-type: none"> ❑ If you are using the TV to change channels, first press the TV FUNCTION button. ❑ If you are using another device to change channels, be sure you have not inadvertently switched your TV from the channel 3 or 4 setting. Use the Channel Fix option to "fix" the channel based on the hookup you used (see page 84). ❑ If you are using another device to change channels, be sure to press the FUNCTION button for that device. For example, if you are using your cable box to change channels, be sure to press the SAT/CABLE FUNCTION button.
Remote control does not operate non-Sony video equipment	<ul style="list-style-type: none"> ❑ If you replaced the batteries to the remote recently, the code numbers for the video equipment may need to be reset. ❑ There may be more than one code for the equipment that you are attempting to operate. ❑ There is a possibility that some non-Sony equipment cannot be operated by your Sony TV remote. You may need to use the equipment's original remote control.

Channels

Problem	Possible Remedies
Cannot receive upper channels (UHF) when using an antenna	<ul style="list-style-type: none"> ❑ Change the Cable option to Off (see page 84). ❑ Use Auto Program in the Channel Menu to add receivable channels that are not presently in the TV's memory (see page 84).
TV is fixed to one channel	<ul style="list-style-type: none"> ❑ Use Auto Program in the Channel Menu to add receivable channels that are not presently in the TV's memory (see page 84). ❑ Check your Channel Fix settings (see page 84).
Cannot receive any channels when using cable TV	<ul style="list-style-type: none"> ❑ Use Auto Program in the Channel Menu to add receivable channels that are not presently in the TV's memory (see page 84). ❑ Make sure the Cable option is set to On in the Channel Menu (see page 84).
Cannot receive or select channels	<ul style="list-style-type: none"> ❑ Use Auto Program in the Channel Menu to add receivable TV channels that are not presently in TV memory (see page 84).

Memory Stick

Problem	Possible Remedies
Image does not display/Cannot see all files	<ul style="list-style-type: none"> ❑ Make sure the image file is a JPEG (.jpg, .jpeg) file or an MPEG1 (.mpg, .mpeg) file. ❑ Make sure the Memory Stick is inserted properly (see pages 63-64). ❑ Check the Filter option setting (see page 74). ❑ Check the Select Contents setting (see page 74) and ensure that files are either in DCF directories if Digital Camera Folders is selected (see page 74), or in the currently selected folder if Select a Folder is selected (see page 74). ❑ The maximum number of files the Memory Stick Viewer can display is 2,000 files total, including all JPEG, MPEG1, and MP3 files. ❑ If you are using a Memory Stick with the Memory Select function, try changing the position of the A/B select switch.
JPEG image displays undesirable motion or flicker in full screen	<ul style="list-style-type: none"> ❑ JPEGs captured using a digital video camera may appear to display motion in full screen. This is a result of the way digital video cameras record still images, and is not a result of a malfunction with the TV.
Rotation not saved after Memory Stick is ejected or Memory Stick Viewer is closed	<ul style="list-style-type: none"> ❑ The Memory Stick might be locked. Unlock the Memory Stick and try rotating the image again. ❑ The file might not have information (EXIF data) that is usually generated when a digital camera records a photo. In this case, it is not possible to save the rotation. ❑ There might be insufficient space on the Memory Stick to save the rotated file. Try deleting one or more files and rotating the image again.
Cannot show (or hide) file information in full screen or Slide Show	<ul style="list-style-type: none"> ❑ Set the File/Information option to On or Off (see page 72).
Cannot see menu	<ul style="list-style-type: none"> ❑ Move the joystick ▲ to display the menu again.
Cannot hear audio while using Memory Stick	<ul style="list-style-type: none"> ❑ Check the TV's volume or Speaker (page 81) settings. ❑ To hear JPEG voice memo in full screen view, select the Digital Camera Folders option and set the Filter option to Show All. ❑ Check that the Music option is not set to Off (see page 73).
Not all MP3 files on Memory Stick are included when the Music /Complete List option is selected (page 73)	<ul style="list-style-type: none"> ❑ The Memory Stick Viewer can display a maximum of 2,000 files total, including all JPEG, MPEG1, and MP3 files. ❑ Make sure that the file is named with the file extension (.mp3).
Cannot see MP3 list to play music	<ul style="list-style-type: none"> ❑ MP3 files on your Memory Stick only can be played as background music during a Slide Show (see page 73).
MP3 file does not play back correctly	<ul style="list-style-type: none"> ❑ The Memory Stick Viewer supports only MP3 files with a fixed data rate of 128 kbps (kilobits per second).
MP3 files on the Memory Stick are not listed	<ul style="list-style-type: none"> ❑ Only MP3 files that are named with the file extension (.mp3) are displayed in the list.
Music files are playing in wrong order	<ul style="list-style-type: none"> ❑ MP3 files are played in alphabetical order, according to the folder in which they are stored. If you want to change the playlist order, rename your files alphabetically in the order in which you want them to play.
MPEG1 movie does not play back correctly	<ul style="list-style-type: none"> ❑ Some variations of MPEG1 movies may not be compatible with the Memory Stick Viewer.
MPEG1 quality is poor when enlarged (page 71)	<ul style="list-style-type: none"> ❑ The quality of the movie when enlarged depends on the resolution of the MPEG1 file. See your camera's instruction manual for details.

Problem	Possible Remedies	
Error message is displayed	❑ No Memory Stick	There is no Memory Stick in the slot.
	❑ Memory Stick Locked	The lock mechanism on the Memory Stick is engaged.
	❑ Memory Stick Error	The Memory Stick in the slot might be damaged; try a different Memory Stick.
	❑ Format Error	The Memory Stick may have been formatted using a PC or other device that is not compatible with cameras.
Error icon is displayed		The file is not a valid MPEG1 or JPEG format.
		The thumbnail is not DCF-compatible.
		The file is a JPEG or an MPEG1, but the thumbnail is unreadable.
		The file is unreadable.

Video

Problem	Possible Remedies
No picture (screen not lit), no sound	<ul style="list-style-type: none"> ❑ If your TV does not turn on, and a red light keeps flashing, your TV may need service. Call your local Sony Service Center. ❑ Make sure the power cord is plugged in. ❑ Press the POWER button on the front of the TV. ❑ Press the TV/VIDEO button to cycle through the connected video sources. ❑ Try another channel; it could be station trouble.
Dark, poor or no picture (screen lit), good sound	<ul style="list-style-type: none"> ❑ Adjust the Picture option in the Video Menu (see page 78). ❑ Adjust the Brightness option in the Video Menu (see page 78). ❑ Check the antenna/cable connections.
No color	<ul style="list-style-type: none"> ❑ Adjust the Color option in the Video Menu (see page 78).
Only snow and noise appear on the screen	<ul style="list-style-type: none"> ❑ Check the antenna/cable connections. ❑ Try another channel; it could be station trouble. ❑ Press ANT to change the input mode (see page 44).
Dotted lines or stripes	<ul style="list-style-type: none"> ❑ Adjust the antenna. ❑ Move the TV away from noise sources such as cars, neon signs, or hair-dryers.
Double images or ghosts	<ul style="list-style-type: none"> ❑ Using a highly directional outdoor antenna or a cable may solve the problem.
"Black box" on screen	<ul style="list-style-type: none"> ❑ You have selected a text option in the Setup Menu and no text is available. (See page 89 to reset Setup selections.) To turn off this feature, set the Caption Vision option to Off. If you were trying to select closed captioning, select CC1 instead of TEXT 1-4.
Black bands appear at the top and bottom of the screen	<ul style="list-style-type: none"> ❑ Some wide-screen programs are filmed in aspect ratios that are greater than 16:9, such as 2.35:1. (This is especially common with theatrical releases). Your TV will show these programs with black bands at the top and bottom of the screen. For more details, check the documentation that came with your DVD (or contact your program provider).

Audio

Problem	Possible Remedies
Good picture, no sound	<ul style="list-style-type: none"> ❑ Press MUTING so that the word Muting disappears from the screen (see page 44). ❑ Make sure the Speaker option is set to On in the Audio Menu (see page 81). ❑ Make sure the MTS option is set to Stereo or Mono (see page 80).
Cannot gain enough volume when using a cable box	<ul style="list-style-type: none"> ❑ Increase the volume of the cable box using the cable box's remote control. Then press TV FUNCTION and adjust the TV's volume.
Sound seems weak or insufficient	<ul style="list-style-type: none"> ❑ The TV's audio might be set to Auto SAP or Mono, when it might be better set to Stereo. In the Audio Menu (see page 80), set the MTS setting to Stereo. If already set to Stereo, switch to Mono (which may reduce background noise during weak stereo broadcasts).
Cannot raise the volume on external audio speakers	<ul style="list-style-type: none"> ❑ If the Speaker option is set to Off and the Audio Out option is set to Fixed (in order to output the sound to your audio system) use your audio receiver to adjust the sound (see page 80). Or, to use the TV remote control, set the Audio Out option to Variable. ❑ To turn on the TV speakers, set the Speaker option to On (see page 80).

General

Problem	Possible Remedies
How to reset TV to factory settings	❑ Turn on the TV. While holding down the RESET button on the remote control, press the POWER button on the TV. (The TV will turn itself off, then back on again.) Release the RESET button.
How to restore Video settings to factory settings	❑ Press the RESET button on the remote control while in the Video Menu (see page 78).
How to restore Audio settings to factory settings	❑ Press the RESET button on the remote control while in the Audio Menu (see page 80).
Cannot cycle through the other video equipment connected to the TV	❑ Be sure the Video Label option is not set to Skip (see page 90).
Cannot operate Menu	❑ If a menu option appears in gray, this indicates that the TV is in a state in which the menu option is not available.
Lost password	❑ In the password screen (see page 86), enter the following master password: 4357 . The master password clears your previous password; it cannot be used to temporarily unblock channels.
TV makes “popping” sound when turned on	❑ This is a normal sound that results from the TV automatically degaussing each time it is turned on.
LED on front panel is lit	❑ The STAND BY LED (see page 13) blinks when the TV is turned on, then shuts off when the picture is displayed. If the LED blinks continuously, this may indicate the TV needs service. ❑ The TIMER LED (see page 13) indicates that the timer is set (page 91). When the timer is set, this LED will remain lit even when the TV is turned off.
Digital cable box does not work	❑ Be sure that you have not connected the digital cable box to the TV's TO CONVERTER jack. This jack is not compatible with digital cable boxes. ❑ If you are connecting a VCR and digital cable box using a splitter, as described on pages 26-27, you must use a special bi-directional splitter that is designed to work with your digital cable box. Contact your cable provider for details.

Specifications

Picture Tube	FD Trinitron® tube	
Antenna	75 ohm external terminal for VHF/UHF	
Television System	NTSC, American TV Standard	
Channel Coverage	VHF	2-13
	UHF	14-69
	CATV	1-125
Power Requirements	120V, 60 Hz	
Inputs/Outputs		
DVI-HDTV	1 terminal, 3.3V T.M.D.S., 50 ohms The DVI-HDTV input terminal is compliant with the EIA-861 standard and is not intended for use with personal computers.	
Video (IN)	4 total (1 on front panel)	1 Vp-p, 75 ohms unbalanced, sync negative
S Video (IN)	3 total (1 on front panel)	Y: 1 Vp-p, 75 ohms unbalanced, sync negative C: 0.286 Vp-p (Burst signal), 75 ohms
Audio (IN)	7 total (1 on front panel)	500 mVrms (100% modulation) Impedance: 47 kilohm
Component Video Input	2 (Y, P _B , P _R)	Y: 1.0 Vp-p, 75 ohms unbalanced, sync negative; P _B : 0.7 Vp-p, 75 ohms P _R : 0.7 Vp-p, 75 ohms
CONTROL S (IN/OUT)	1	
Variable/Fixed Audio (OUT)	1	More than 408 mVrms at the maximum volume setting (Variable) More than 408 mVrms (Fixed) Impedance (output): 2 kilohms
Supplied Accessories	Remote Control	RM-Y188
	AA (R6) Batteries	2 supplied for remote control
Visible Screen Size	KV-30XBR910	30 in (762 mm) picture measured diagonally
	KV-34XBR910	34 in (863.6mm) picture measured diagonally
Actual CRT Size	KV-30XBR910	32 in (812.8 mm) picture measured diagonally
	KV-34XBR910	36 in (914.4 mm) picture measured diagonally
Speaker Output	7.5 W x 2 + 15 W subwoofer	
Dimensions (W x H x D)	KV-30XBR910	898 x 607 x 563 mm (35 3/8 x 23 7/8 x 22 1/8 in)
	KV-34XBR910	994 x 652 x 605 mm (39 1/8 x 25 5/8 x 23 7/8 in)
Mass	KV-30XBR910	70 kg (155 lbs)
	KV-34XBR910	90 kg (199 lbs)
Power Consumption	In Use	280 W
	In Standby	1 W

Design and specifications are subject to change without notice.

Optional Accessories

- ❑ A/V Cable (VMC-810/820/830 HG)
- ❑ Audio Cable (RKC-515HG)
- ❑ Component Video Cable (VMC-10/30 HG)
- ❑ TV Stand for KV-30XBR910: SU-30XBR1
TV Stand for KV-34XBR910: SU-34XBR1

Index

0-9 buttons 45, 50
16:9 aspect ratio 52
4:3 aspect ratio 52
4:3 Default settings 83

A

Advanced Video 79
ANT button 44, 50
antenna, connecting 17
Audio Menu 77, 80
Audio Out 81
audio receiver, connecting 39
Auto Program (channel setup)
41, 84
Auto SAP, MTS setting 80
AUX jack, described 15
AV1-3/DVD slide switch 46

B

balance, adjusting 80
bass, adjusting 80
batteries, inserting in remote 43
bilingual audio 80
blocking programs. *See ratings.*
brightness, adjusting 78

C

cable
connecting 17
setting On/Off 84
with VCR, connecting 24
cable box
connecting with VCR 26
Twin View issues 53
using with TV remote
control 59
Caption Vision 89
CATV. *See cable*
CH buttons 13, 45, 50
changing picture size, in Twin
View 55
Channel Fix 84
Channel Menu 77, 84
Channel Skip/Add 85
channels

creating labels 85
setting up 41
CineMotion 10, 44, 79
ClearEdge VM 79
ClearEdge VM Velocity
Modulation 10
clearing, Favorite Channels 56
closed caption modes 77, 89
CODE SET button 45
color, adjusting 78
Component Video Inputs 10
CONTROLS 40
CONTROL S IN/OUT jacks,
described 15
Cool, Color Temperature 78

D

degauss 100
Demo, Menus 91
Digital Reality Creation 9
Digital Visual Interface (DVI) 10
DISC MENU button 46, 59
DISPLAY button 45, 50
DRC Mode 79
DRC MODE button 44
DRC Palette 79
DRC. *See Digital Reality Creation.*
DVD player
using with TV remote
control 59
with A/V connectors,
connecting 36
DVI. *See Digital Visual Interface.*
DVI-HDTV 101

E

Effect button 46
ENTER button 45, 50
error messages, Memory Stick 98

F

Fast-forward button 46
Favorite Channels 10
clearing 56
in Channel Menu 84

using 56
features 9
Fixed audio setting 81
FREEZE button 46, 57
Freeze, using 57
Full mode, setting 82

G

GUIDE button 45

H

HD Detailer 10
HD/DVD IN
(1080i/720p/480p/480i)
jacks, described 15
hue, adjusting 78

I

INDEX button 44, 51
interlaced 9, 44, 79, 94

J

joystick 44
JUMP button 44, 50

L

label
channels 85
Language, setting 90

M

MDP, using with TV remote
control 59
Memory Stick
features 61
Index 66
indicator (LED) 13
inserting 63
insertion slot 13
panning photos 70
photo options 69
playing movies 71
precautions 76
removing 65

- rotating photos 70
- slide show options 73
- troubleshooting 97
- viewing photos 68
- zooming photos 70
- Memory Stick button 13, 45
- Memory Stick Viewer 10
- MENU button 13, 44, 46, 50, 77
- Menus
 - Audio 77, 80
 - Channel 77, 84
 - Parent 77, 86
 - Screen 77, 82
 - Setup 89
 - Video 77, 78
- Mono, MTS setting 80
- Movie mode 78
- movies
 - viewing thumbnails 66
- MTS 80
- MUTING button 44, 50

N

- Neutral, Color Temperature 78
- Normal mode, setting 82

O

- off, turning off the TV 13
- on, turning on the TV 13

P

- Parent Menu 77, 86
- parental control, described 10
- password, changing 86
- Pause button 46
- photos
 - viewing thumbnails 66
- PIC MODE button 45
- picture contrast, adjusting 78
- Picture in Picture. *See Twin View.*
- Play button 46
- POWER button 13
- power cord, removing from holder 11
- powering on/off, the TV 13
- presetting channels 84
- Pro (Video) mode 78
- problems, troubleshooting 95–100
- progressive 9, 44, 79, 94

R

- ratings, setting 86–88
- ratings, viewing blocked programs 87, 88
- Record buttons 46
- remote control
 - inserting batteries 43
 - programming 47–48
- removing, Favorite Channels 56
- RESET button 44
- resetting
 - Audio options 80
 - Video options 78
- Rewind button 46

S

- S VIDEO jack, described 13, 15
- SAT/CABLE FUNCTION button 44
- SAT/CABLE POWER button 45
- satellite receiver, using with TV remote control 58
- Screen Menu 77, 82
- Scrolling Index 10
- Scrolling Index, using 51
- SELECT button 46
- setting up channels 41
- Setup Menu 89
- sharpness, adjusting 78
- Simulated, Effect 80
- sizing, picture in Twin View 55
- SLEEP button 44
- speakers
 - turning on/off 81
 - using external speakers 81
- specifications 101
- STAND BY indicator 13, 100
- Standard mode 78
- Steady Sound, described 10
- Steady Sound, setting 80
- Stereo, MTS setting 80
- Stop button 46
- surround sound 80
- SYSTEM OFF button 46

T

- Tilt Correction 41, 90
- tilt, correcting 41, 90
- Timer 91
- TIMER indicator 13, 100
- timers, setting 91

- TO CONVERTER 15
- transport buttons 46
- treble, adjusting 80
- troubleshooting 95–100
- TruSurround 80
- TruSurround, Effect 80
- turning on/off the TV 13
- TV FUNCTION button 44, 50
- TV POWER button 45, 50
- TV/VCR button 46
- TV/VIDEO button 44, 50
- Twin View
 - described 10
 - using 53–55
- Twin View button 45

V

- Variable audio setting 81
- VCR
 - using with TV remote control 58
 - with cable box, connecting 26
 - with cable, connecting 24
 - with satellite receiver, connecting 32
- VCR/DVD button 46
- Vertical Center 83
- Vertical Correction 41, 90
- Vertical Size, adjusting 83
- VHF/UHF jack, described 15
- VIDEO (L/R)/AUDIO jacks, described 15
- Video Menu 77, 78
- Video modes, selecting 78
- Vivid mode 78
- VOL buttons 13, 44, 50

W

- Warm, Color Temperature 78
- Wega, described 9
- Wide Mode 82
- Wide Screen, described 9
- Wide Zoom mode, setting 82
- widescreen 10

Z

- zoom feature, with Twin View 55
- Zoom mode, setting 82

LIMITED WARRANTY

This warranty is applicable to U.S. residents only. If you are a Canadian resident, see the separately enclosed warranty for your product.

Sony Electronics Inc. ("Sony") warrants this Product (including any accessories) against defects in material or workmanship, subject to any conditions set forth as follows:

1. **LABOR:** For a period of 90 days from the date of purchase, if this Product is determined to be defective, Sony will repair or replace the Product, at its option, at no charge, or pay the labor charges to any Sony authorized service facility. After the Warranty Period, you must pay for all labor charges.
2. **PARTS:** In addition, Sony will supply, at no charge, new or rebuilt replacements in exchange for defective parts for a period of one (1) year (color picture tube- two (2) years). After 90 days from the date of purchase, labor for removal and installation is available from Sony authorized service facilities or a Sony Service Center at your expense.
3. **ACCESSORIES:** Parts and labor for all accessories are for one (1) year.

In-home diagnostic warranty service is provided during the initial 90 day period for 19" (measured diagonally), or larger screen size through a Sony authorized service facility.

To obtain warranty service, you must take the Product, or deliver the Product freight prepaid, in either its original packaging or packaging affording an equal degree of protection, to any authorized Sony service facility.

This warranty does not cover customer instruction, installation, set up adjustments or signal reception problems.

This warranty does not cover cosmetic damage or damage due to acts of God, accident, misuse, abuse, negligence, commercial use, or modification of, or to any part of the Product, including the antenna. This warranty does not cover damage due to improper operation or maintenance, connection to improper voltage supply, or attempted repair by anyone other than facility authorized by Sony to service the Product. This warranty does not cover Products sold AS IS or WITH ALL FAULTS, or consumables (such as fuses or batteries). This warranty is valid only in the United States.

Proof of purchase in the form of a bill of sale or receipted invoice which is evidence that the unit is within the Warranty period must be presented to obtain warranty service.

This warranty is invalid if the factory applied serial number has been altered or removed from the Product.

REPAIR OR REPLACEMENT AS PROVIDED UNDER THIS WARRANTY IS THE EXCLUSIVE REMEDY OF THE CONSUMER. SONY SHALL NOT BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES FOR BREACH OF ANY EXPRESS OR IMPLIED WARRANTY ON THIS PRODUCT, EXCEPT TO THE EXTENT PROHIBITED BY APPLICABLE LAW, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE ON THIS PRODUCT IS LIMITED IN DURATION TO THE DURATION OF THIS WARRANTY.

Some states do not allow the exclusion or limitation of incidental or consequential damages, or allows limitations on how long an implied warranty lasts, so the above limitations or exclusions may not apply to you. In addition, if you enter into a service contract with the Sony Partnership within 90 days of the date of sale, the limitation on how long an implied warranty lasts does not apply to you. This warranty gives you specific legal rights, and you may have other rights which vary from state to state.

For your convenience, Sony Electronics Inc. has established telephone numbers for frequently asked questions:

To locate the servicer or dealer nearest you, or for service assistance or resolution of a service problem, or for product information or operation, call:

Sony Customer Information Service Center

1-(800)-222-7669

Or visit the Sony Web Site:

www.sony.com

For an accessory or part not available from your authorized dealer, call:

1-(800)-488-SONY(7669)